YOUNG PEOPLE IN RECOVERY FROM SUBSTANCE USE DISORDERS: AN ANALYSIS OF A RECOVERY HIGH SCHOOL'S IMPACT ON STUDENT ACADEMIC PERFORMANCE & RECOVERY SUCCESS

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Dedication

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The purpose of this dissertation was to produce knowledge on the academic performance and recovery success of students enrolled in a Recovery High School. The study site was Hope Academy, located in Indianapolis, IN, and at the time of this publication, one of just five schools in the U.S. accredited by the Association of Recovery Schools. Students enrolled between Fall 2010 and Spring 2017 were evaluated using academic test scores (NWEA-MAP), a measure of recovery success (GAIN-SS), as well as key informant interviews with 13 students and five staff members. It was concluded that recovery school students displayed similar levels of academic growth when compared to a nationally-representative matched Virtual Comparison Group, t-stat = +0.849 (p=0.397). This finding provides evidence that even after experiencing a relapse, recovery school students were capable of achieving similar levels of academic growth as their peers not in recovery from substance use disorders. Interview participants provided more context to the quantitative findings with first-hand accounts of the impact the recovery school had on students.

Cynthia Stone, DrPH, Chair

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List of Abbreviations

ARS: Association of Recovery Schools

GAIN-SS: Global Assessment of Individual Needs-Short Screen

Hope: Hope Academy, a Recovery High School in Indianapolis, IN

NWEA-MAP: Northwest Evaluation Association-Measure of Academic Progress

RHSs: Recovery High Schools

SUDs: Substance Use Disorders

VCG: Virtual Comparison Group

Section I: Introduction & Background

Chapter 1: Purpose of Dissertation

Substance use disorders (SUDs) in the U.S. affected more than 1.3 million young people between the ages of 12 and 17 in 2014; however, little more than 120,000 of these young people received formal treatment [1, 2]. Four years prior, an estimated 4% of all young people in Indiana were in need of treatment for SUDs [3]. For young people in recovery the school environment is often the single greatest hazard to their success in maintaining sobriety [4], which is illustrated by the fact that nearly 80% of all young people in recovery return to drug use within a year after returning to traditional high schools post treatment [5, 6].

Hope Academy, located in Indianapolis, Indiana, is one of approximately 33 Recovery High Schools (RHSs) in the U.S., and currently one of only five schools accredited by the Association of Recovery Schools [7]. RHSs have a dual mission to provide both a high quality education and recovery support services to young people in recovery from SUDs [8]. These schools provide a unique environment where young people can manage their SUD recovery journey while maintaining academic progress, which evidence suggests may contribute to successful long-term sobriety [9].

Previous studies on the effectiveness of RHSs have remained noticeably scarce in the academic literature; limited almost exclusively to exploratory analyses [10-12]. The most substantial research has provided a descriptive analysis of the student body and key characteristics of various RHS programs [13-15]. However, no single analysis has been conducted that both quantitatively and qualitatively measures recovery success and academic performance of students who are educated under the RHS model.

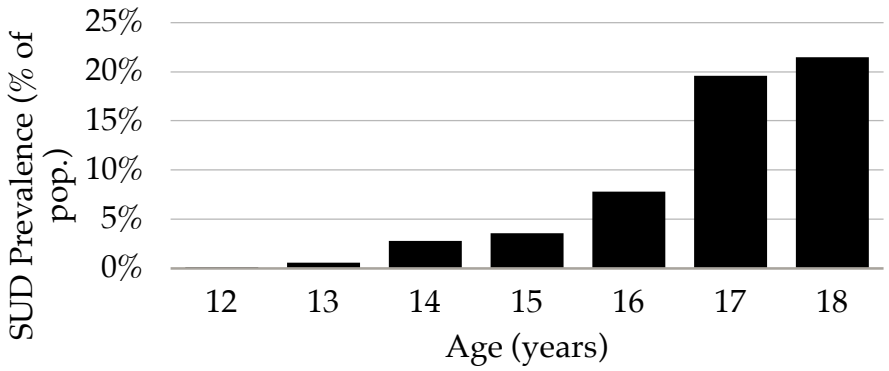
The purpose of this dissertation was not to compare student outcomes between educational programs and other various models for young people in recovery from SUDs. Instead, the purpose of this study was to produce knowledge on the academic performance and recovery success of students within a RHS. The results of this dissertation may be used to better understand effective settings for young people in SUD recovery.

Chapter 2: Review of Literature

Substance Use Disorders Among Young People

Substance use disorders (SUDs) occur when recurrent use of alcohol and/or drugs causes "clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home" (p.22) [2]. SUD prevalence rises sharply after age 12 and peaks between ages 18 and 23 (Figure I) [16, 17].

Figure I: SUD Prevalence by Age in the U.S. [16]



Not only have SUDs been shown to exacerbate the overall disease burden in society, but also cost nearly $250 billion dollars annually in the form of health care costs, lost productivity, and associated criminal justice expenditures [18-20]. In 2009, nearly half (47%) of young people in grades eight through 12 admitted use of an illicit drug in the past 30-days, and almost one-third (28.4%) consumed alcohol within the same timespan [21]. In 2013, there were an approximate 120,000 young people in the U.S. aged 12 to 17 in recovery treatment programs for SUDs [22]. Most of the young people who received SUD treatment did so in outpatient facilities (87%), with the remainder split between non-hospital residential treatment and hospital inpatient treatment facilities [22].

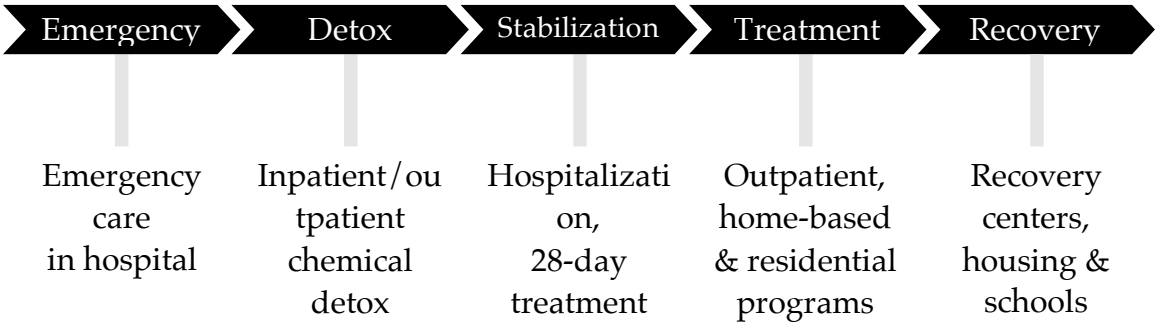
Young people are particularly vulnerable to substance use since their brain is still under development and yet to mature. The prefrontal cortex, the specific area of the brain that remains underdeveloped until an individual reaches their mid-20s [23], is responsible for impulse control, decision making, and pharmacological processes of addictive drugs [24]. Young people are less inclined to seek help for drug use than their adult counterparts, and evidence suggests a young person's willingness to undergo treatment is proportional to the amount of negative consequences he or she has experienced in their relatively short lifespan [25]. Moreover, young people, compared to adults, are more likely to conceal their substance use, and maintain such behaviors even after occurrences with the criminal justice system [26]. Lastly, young people are prone to taking risks and rebelling against authority, which makes them especially susceptible to the negative effects of substance use [27].

Unfortunately, the effects of SUDs can often carry over into adulthood, considering the majority of adults with SUDs report their drug use began during adolescence [28, 29]. The negative effects of SUDs among young people include, but are not limited to, illness, poverty, reduced grades, family and social problems, school and work performance, legal and criminal justice issues, diminished memory and cognitive abilities, problems obtaining and maintaining employment, and a decreased probability of finishing high school or attending university [30-39]. However, young people who are recognized and treated for SUDs early are capable of progressing into adulthood with minimal long-term repercussions [26]. Therefore, given the numerous negative outcomes, it is crucial that we understand programs that are effective in helping young people recover from SUDs.

Importance of Recovery within the Continuum of Care

For young people impacted by SUDs, the continuum of care typically begins with emergency care in a hospital, followed by chemical detox and short-term stabilization, and ends with treatment and recovery (Figure II) [40]. Therefore, once an individual completes a treatment program, he or she may begin recovery support, which are not treatment substitutes, but instead aim to reinforce the progress gained during treatment [26].

Figure II: SUD Continuum of Care [40]



For the purposes of this dissertation, young people in recovery, are defined as individuals between the ages of 14 and 18 who are in recovery from SUDs. Moreover, recovery is defined as the period of time, often following treatment for addiction, when an individual voluntarily attempts to maintain a lifestyle abstinent from drugs and alcohol, and actively utilizes resources to prevent and reduce the impact of a relapse episode [41]. Recovery can therefore be characterized by the individual's steady improvement over time and continued commitment to returning to an abstinent lifestyle following a relapse [42].

For young people there are few options when it comes to recovery support in general, and the options become nearly nonexistent for those who lack insurance coverage [43]. In the Indianapolis region, young people can choose from any of the following recovery support service providers: Fairbanks Hospital [44], Eskenazi Hospital [45], Community Health Network [46], private counseling, or Recovery High School [47]. The recovery school option is unique in that young people attend tuition-free, and it is the only recovery support provider that offers free transportation [48] - arguably making this the most accessible recovery option for young people.

Significance of Schools in the Recovery Process

Nearly one in four high school students in the U.S. were provided with an illicit drug on school property [49], and nearly all young people in recovery who return to their original high school post-treatment report being offered drugs on the first day back [50]. Evidence suggests that academic achievement, interest in school, and association with non-using peers can all be protective factors against substance use for young people in recovery [51-54]; while associated risk factors include, a lack of academic success, availability of drugs, and interacting with substance-using individuals [55-58] - all of which commonly occur in or around the young person's school.

Recovery High Schools in the U.S.

The traditional high school environment creates two critical stressors that could initiate a relapse in a student's recovery: academic stressors (i.e., grades, discipline), and socialization stressors (i.e., peer influences, social norms) [55-57, 59]. To minimize and control school-based stressors, Recovery High Schools (RHSs) were created as a school model with a dual mission to provide both quality education and recovery support to their students [8]. RHSs allow young people in recovery the opportunity for a traditional high school experience, while surrounded by like-minded peers who share similar goals and experiences in their recovery.

The first RHS was founded in Maryland in 1979 [60], and similarly to the RHSs of today, it operated like a traditional high school, where students return home at the end of the day. As of August 2017, the Association of Recovery Schools reports there are 33 schools nation-wide operating under the RHS model (Figure III), with five of these schools having successfully received accreditation from the Association of Recovery Schools [61, 62]. Hope Academy, located in Indianapolis, Indiana is one of the five accredited schools, and also the case subject for this dissertation.

Figure III: Recovery Schools Currently Operating or Planned in the U.S. [62]

Most RHSs expect prospective students to complete SUD treatment and maintain a minimum length of sobriety prior to enrollment, typically 30 to 90 days of sobriety is expected [63]. Students are also expected to attend at least two recovery meetings per week, and make a commitment to sobriety in the form of a signed pledge or contract [63]. Students enrolled at a RHS undergo recovery support activities in the form of, but not limited to, group therapy and individual counseling [63, 64]. For these young people, RHSs can supplement, not substitute, other forms of ongoing treatment for SUDs and mental health problems, which the student will often undergo simultaneously [13, 26]. Because the traditional high school environment is often the single greatest hazard to a student's success in achieving and maintaining sobriety, RHSs can be a vital component of the continuum of care for these young people in recovery [65-68].

Recovery High Schools vs. School-based Recovery Models

As previously discussed, there are very few adolescent-specific recovery programs available [43]. While the number of schools operating under the RHS model has expanded, there are four other school-based recovery models that RHSs can be compared against: therapeutic boarding schools, alcohol and drug treatment center schools, non-traditional schools of choice, and traditional secondary schools [62]. Implementation of these individual models can vary based upon a variety of qualitative factors, but the primary purpose and goals remain consistent within each of the five models.

Similarly, the consistent characteristics of each model help distinguish one from the other. These defining characteristics are outlined in Table I, which was developed based on the Association of Recovery School's biennial report [62]. As seen in Table I, alcohol and drug treatment center schools, while called schools, are the only school-based recovery model of the five that does not meet state requirements to award a high school diploma [62]. This can in part be attributed to alcohol and drug treatment center schools self-identifying as a treatment center primarily, and a school secondarily. In contrast, the other four models self-identify primarily as a school.

Table I: Characteristics of School-based Recovery Models [62]

School Type	Primary Purpose	Meets state requirement for awarding a school diploma	Students segregated from peers not in active recovery	Available to any student in recovery
Recovery High Schools	To educate students in recovery from substance use or co-occurring disorders.	Yes	Yes	Yes
Therapeutic Boarding Schools	To provide emotional growth through designated therapeutic programs.	Yes	No	No
Alcohol & Drug Treatment Center Schools	To provide clinical treatment &/or extended care with included academic & behavioral support.	No	Yes	No
Non-Traditional Schools of Choice	To provide options for parents desiring an alternative to their school-of-zone.	Yes	No	Yes

School Type	Primary Purpose	Meets state requirement for awarding a school diploma	Students segregated from peers not in active recovery	Available to any student in recovery
Traditional Secondary Schools	To prepare students for post-secondary careers & education.	Yes	No	Yes

There is strong evidence that 1) peer substance use is highly correlated with personal substance use [69], and 2) models that promote a substance-free peer environment are associated with more positive long-term outcomes [70-78]. With that said, only two of the five models segregate their students from peers who are not in recovery from SUDs, alcohol and drug treatment center schools and RHSs. This is more of a logistical and financial issue for the therapeutic boarding school model, which often shares resources with traditional secondary schools.

Lastly, the five school-based recovery models can be compared by their admission standards. Traditional secondary school, non-traditional schools of choice and RHSs, by virtue of accepting state-based education monies, must accept any eligible student. Therapeutic boarding schools and alcohol and drug treatment center schools, on the other hand, have no such admission requirements; however, students are not eligible to participate in these two models until they have completed a pre-approved treatment program [62].

Of the five school-based recovery models, RHSs are the only model that simultaneously meets state requirements for awarding a high school diploma, segregates their students from peers who are not in active recovery, and are made available to any young person in recovery. While this provides strong circumstantial evidence in support of the RHS model, no quantitative study to date has attempted to compare student outcomes between these five models. Before a comparative-effectiveness study such as this can be attempted, a case study is needed to determine the impact of the RHS model alone on student academic performance and recovery success outcomes.

Hope Academy

Hope Academy ('Hope'), a Recovery High School (RHS) located on the northeast side of Indianapolis, was founded in 2006 [47]. Primary leadership at Hope includes the Principal and a Chief Operations Officer. Additional staff and faculty members include, five teachers, one recovery coach, one nurse (contracted), one part-time data analyst, and one administrative assistant [79].

Hope offers students an Indiana High School diploma, where the average graduation rate is ~53% [80]. Average enrollment at Hope is 37 students, with ~70% in grade 12 and the remaining split between grades 9, 10 and 11 [81]. Students attend Hope tuition-free, and are not mandated by the school to carry health insurance. Admissions standards at Hope are imposed by the Indiana Department of Education, which prohibits public charter schools from denying any eligible student from attending; consequently, Hope Academy, by law cannot deny an otherwise eligible student who has not previously undergone SUD treatment.

What makes the student population at Hope unique is the homogeneous makeup, where 81% are white, 59% are male, and 22% are economically disadvantaged [80]. Reports show the vast majority of Hope's students are middle to middle-upper class, and come from households where one or both parents have attained education levels well above the national average [13]. Hope students are required by the school to engage, at a minimum of twice per week, in evidence-based recovery support meetings outside of normal school hours, the most common of which include, Adolescent Community Reinforcement Approach (A-CRA) [82], Cognitive-Behavioral Therapy (CBT) [83], and Twelve-Step Facilitation Therapy [84].

While Hope Academy is similar to other RHSs in many ways, there are three reasons why studying Hope as a single-site analysis is appropriate in the context of this dissertation. First, Hope Academy is one of just five RHSs in the country accredited by the Association of Recovery Schools [7]. Secondly, Hope is the only known RHS with a data analyst on staff. Finally, Hope is the only known RHS gathering extensive longitudinal data on their students. Simply put, Hope Academy presents a rare setting to better understand student outcomes in a school operating under the RHS model.

Theoretical Framework

One underlying theoretical framework in support of RHSs is the Theory of Change Model [77]. When operationalized within RHSs, the Theory of change model supports the following activities: minimizes contact with "negative" peer influences, promotes interaction with "positive" peers in recovery, addresses destructive behaviors & any co-occurring disorders, provides an accredited curriculum taught by licensed teachers, and finally, builds peer & family relationships, social support and accountability [85].

Existing Literature

Compared to the existing academic literature on adults in recovery from SUDs, the corresponding body of literature for young people in recovery is quite scarce, and even less has been published specifically on RHSs. The limited number of studies on young people in recovery have compared the effectiveness of various treatments [86, 87], reviewed participation in 12-Step programs [88, 89], and examined association between program attendance and substance use outcomes [90]. Once again, no publication focused solely on examining the effectiveness of RHSs.

Far and away the most substantial research to date on RHSs has been conducted by Andrew Finch and Paul Moberg. In the early 2000's their work was more qualitative in nature and focused on broad policy issues [12, 68]. Starting in 2008, their work became more quantitative with a descriptive analysis of the student body across 17 RHSs [13]. Hope Academy was not one of the 17 schools included in the analysis. In the total sample (N=317), mean student age was 16.5 (Table II) [13]. Males represented little more than half (54%) of the population, and nearly three out of four students were non-Hispanic white [13].

RHSs typically require a minimum length of sobriety before enrollment, but only 78% of the students had prior treatment for SUDs, and little less than half (49%) had received prior mental health treatment [13]. The median length of enrollment was 93 calendar days [13].

Table II: Student Characteristics Across 17 U.S. Recovery High Schools [13]

Characteristics of Students at Enrollment	Result
N	317
Mean age (SD)	16.5 (1.0)
% Male/Female	54% / 46%
% Non-Hispanic White	78%
% Parent highest education ≥ BA	55%
Past SUD treatment:	78%
Past mental health treatment:	49%
% Juv. justice involved	25%

In 2014, Finch and Moberg expanded their analysis to include student self-reported measures of substance use and mental health symptoms while enrolled at a RHS [15]. Eight out of ten students reported improvement with drug and alcohol issues, 71% reported academic improvement, 59% reported emotional improvements, and 51% reported an improvement with family issues since entering a RHS [15]. While Finch and Moberg's 2014 analysis included students from seven different RHSs, all seven schools were located in Minnesota [15].

Also in 2014, Finch and Moberg conducted a descriptive study of program characteristics across 17 RHSs [14]. Once again, Hope academy was not one of the 17 schools in the analysis, which consisted of site visits, surveys and staff interviews [14]. They found that average enrollment per school was 24.5 students, and the teaching staff was as low as one teacher and as high as five per school; however, six of the 17 schools had only one full-time teacher on staff [14]. Additionally, four schools reported no licensed recovery counselor on staff, five schools had one counselor, and five schools had either two or three counselors on staff [14].

In their most recent publication to date, Finch and colleagues conducted a quasi-experimental study in 2017 that compared substance use and academic outcomes between 134 SUD-impacted students at RHSs and 60 SUD-impacted students at non-RHSs [91]. The study participants were recruited from schools across three states (MN, WI, TX) between 2011 and 2016, and student outcomes were measured 6-months post-recruitment. There were two major findings that resulted from this study; first, RHS students were more likely to report higher abstinence from drugs and alcohol (OR=4.36, p=.026), and second, RHS students reported less absenteeism from school (d=-0.56, p=.028) [91].

Despite the work of Finch and Moberg, a significant gap in the academic literature remains as to whether or not measures of student academic performance and recovery success improve under the RHS model. Simply put, academic performance and recovery success continue to be the primary subjects of concern for educators and policy makers who work with students in recovery from SUDs. Therefore, as recovery models are being established and utilized, methods to analyze student outcomes under these models should be implemented.

Once more, the purpose of this dissertation was not to compare student outcomes between educational programs and other various models for young people in recovery from SUDs. Rather, the purpose of upcoming Section II of this dissertation was to produce knowledge on the academic performance and recovery success of RHS students when measured against a matched comparison group comprised of peers who are not in SUD recovery. The results of this study may be used to better understand effective settings for students in SUD recovery and the extent to which outcomes of students educated under the RHS model change over time.

Section II: Quantitative Assessment of RHS Students

Chapter 3: Introduction & Purpose of Section II

As previously discussed, only one single academic publication currently exists that attempted to measure academic performance and recovery success among young people in recovery from SUDs who are educated under the Recovery High School (RHS) model. In this section, a study design is proposed and conducted to examine outcomes among young people in recovery from SUDs who attended a RHS. Student academic performance growth rates were assessed using the Northwest Evaluation Association's Measure of Academic Progress (NWEA-MAP) and compared against a nationally-representative matched Virtual Comparison Group (VCG) comprised of peers who are not in SUD recovery and who attended non-RHSs. Student recovery success was assessed using the Global Assessment of Individual Needs-Short Screen (GAIN-SS).

The original study group database of RHS students was de-identified and provided to this researcher by RHS administrators in the Fall of 2016. A study protocol for this study was submitted to the Indiana University IRB and was determined to be exempt on October 5th, 2016 (Appendix A). IRB deemed that a full review was not required since this analysis relied exclusively on de-identified secondary data.

Research Questions

Section II of this dissertation aimed to answer the following three research questions: 1) What percentage of students at a Recovery High School score in the average or above average range in academic performance? 2) To what extent does the academic performance growth of students at a Recovery High School differ from a nationally-representative matched Virtual Comparison Group (VCG)? 3) To what extent does academic growth among Recovery High School students differ, relative to their VCG, based upon each student's recovery success (relapse, no relapse) during the corresponding time period?

The study group consisted of students in recovery from SUDs who attended a RHS (Hope Academy) between Fall 2010 and Spring 2015. Over this time period, there were 57 cases where a RHS student had at least two testing periods on the measure of academic performance and at least one corresponding score from the measure of recovery success. These were the inclusion criteria used to define and select the study group.

Chapter 4: Methodology

Measure of Academic Performance

The Northwest Evaluation Association - Measure of Academic Progress (NWEA-MAP) is administered three times a year (Fall, Winter, Spring) to evaluate the effectiveness of the school's programs on increasing student academic performance [92]. The NWEA-MAP assesses students across three academic subject areas; reading, language usage and mathematics [93], and has demonstrated high levels of reliability and validity (Appendix B) [94, 95]. Students have unlimited time to complete the measure, but the average student completes each subject area in less than 60-minutes [96].

It is important to note that the NWEA-MAP is a growth test for academic skill, not a traditional criterion reference test for academic knowledge. This means two things, primarily: 1) theoretically once a student has obtained an academic skill, unlike academic knowledge, they never lose that skill; and therefore, 2) scores on a growth test, in theory, should never decrease over time, unlike a criterion reference test where academic knowledge may fluctuate over time.

The NWEA-MAP is administered widely across the national secondary school population, with 10.2 million students taking the measure in 2015; who represented more than 23,000 public schools, 6,000 school districts, and 49 U.S. states [97]. Hope Academy is required by the Mayor's Office of Indianapolis to use the NWEA-MAP to maintain their status as a charter school. The NWEA-MAP is also required by the Association of Recovery Schools (ARS) as part of their accreditation standards [98]. Consequently, the NWEA-MAP will remain the academic measure of choice at Hope and other RHSs for the foreseeable future.

Measure of Recovery Success

The measure of student recovery success was the Global Assessment of Individual Needs-Short Screen (GAIN-SS), and it is administered every eight to 12 weeks at Hope Academy. The GAIN-SS can be used to assess student recovery progress and success [99]. The total survey is 20-items split across four sections (Appendix C), and is usually administered in approximately five minutes.

Of the four sections within the GAIN-SS, the one section of interest in this study is the Substance Disorder screener (SDScr), which is comprised of five questions. Participants are asked to rate the occurrence of behaviors on a scale of four (occurred during past month) to zero (never) [100]. The results from these five questions produce a final score called SU Month, which ranges from zero (no relapse in prior month) to five (severe relapse in prior month). A difference in the variable SU Month, which 'moves' over time, indicates a change in recovery success for that individual. The GAIN-SS has demonstrated strong evidence of validity and reliability among young people, with strong internal consistency (α=0.96), and a high sensitivity for correctly identifying individuals with a disorder (90%) and those without (92%) [101].

Methods Research Question #1

What percentage of students at a Recovery High School score in the average or above average range in academic performance?

Results from this research question are intended to serve as a descriptive statistic, as a high-level snapshot of the study group across their entire tenure at the Recovery High School (RHS). These results are not intended to claim a causal association, one way or the other, between recovery school attendance and subsequent academic classifications. To answer this question, the recorded NWEA-MAP scores of students who attended the RHS and met the inclusion criteria were classified using the 2015 NWEA normative data, the most recent normative data available [97]. This normative data, published by the NWEA, draws from a test pool of more than 10 millions students across 49 U.S. states and is based on a standard bell curve [97]. Therefore, it is expected that 68% of all study group test scores will fall within one standard deviation above and one standard deviation below the mean (i.e., 'Average') [97]. Additionally, it is expected that 16% of all test scores will be classified as 'Below Average' (any score less than one standard deviation below the mean), and another 16% as 'Above Average' (any score greater than one standard deviation above the mean).

The NWEA norms data was categorized into three time periods: beginning, mid and end-year norms. Only end-year status norms were used to categorize the study group since these norms are theoretically the highest on a growth test, and therefore offer the highest bar by which to compare the study group. The study group participants were matched to the appropriate norms data by subject area (reading, language usage or mathematics) and grade level in school. Study group participants in grade 12 were classified using grade 11 norms since the NWEA norms data ends at grade 11 [97]. It is important to note once again that the students included in the national normative data were not necessarily in recovery from SUDs.

Students in the study group were classified as 'Average' if their recorded MAP score fell between one standard deviation above and below the mean, and 'Above Average' if the score was greater than one standard deviation above the mean based on the 2015 NWEA national end-year status norms [97]. For example, the average end-year reading status score for 11th grade students was 222.3 with a standard deviation of 17.68; therefore, a student was classified as 'Average' if their score was between 204.62 and 239.98. A reading score of 239.99 or higher would categorize that student as 'Above Average', and a score of 204.61 or lower would categorize that student as 'Below Average'. Results are presented as the percentage of students in the study group who qualify as 'Below Average', 'Average' or 'Above Average' in each of the three subject areas: reading, mathematics and language usage.

One minor limitation is that these classifications are based on all students in a particular grade level, and no attempt is made to match the study group on any other criteria. However, the primary limitation of the first research question is that a student's test scores could improve, but the improvement may not be enough to reclassify the student. For instance, an 11th grade student could improve their reading score by more than 25 raw points and still be classified as 'Average'.

Without accounting for academic growth, these test scores and classifications may be difficult to interpret and draw any substantial conclusions. Therefore, in upcoming research question two, the academic growth of students in the study group will be compared against a nationally-representative matched sample of students using a comparison of means t-test as the statistical method. Doing so will help define what specific level of student academic growth is expected, and whether the students in the study group meet that expectation. Additionally, research question two may be used to better understand if and why any unusual outcomes are found in the first research question.

Methods Research Question #2

To what extent does the academic performance growth of students at a Recovery High School differ from a nationally-representative matched Virtual Comparison Group (VCG)?

To answer this question, raw growth of individual students in the study group was first calculated by taking the difference between their initial and final MAP test scores during the specified time period (Raw growth = final score - initial score). The raw growth scores were then compared against a nationally-representative Virtual Comparison Group (VCG) using a two-sample

comparison of means paired t-test. The NWEA defines a VCG as, "a view of student growth by school, achievement level, grade, ethnicity, or gender relative to custom student achievement and growth norms that represent similar students educated in similar schools from across the country" (p. 1) [102]. The primary benefit of using a nationally-representative VCG was the ability to match study group participants on a variety of characteristics, and therefore obtain a highly representative sample by which to compare the study group.

This researcher was awarded the Kingsbury Research Award in late 2016 by the NWEA. Award recipients receive a VCG dataset, at no cost, comprised of data relevant to their specific research needs. The VCG used in this study was custom-built by NWEA research staff.

The process of building the VCG was as follows: the initial study group data set of students was submitted by this research staff to NWEA staff in March 2017. The NWEA staff then proceeded to identify VCG matches for the study group students based on the matching criteria listed below. Students were included in the VCG only if they matched on every criterion, doing away with propensity scores or the need to assign weights to different criteria.

When identifying VCG matches, the NWEA identified similar students who attended similar schools as each of the study group participants. The matching criteria for similar schools included: 1) the percentage of students receiving free or reduced-price lunches, and 2) school location (i.e., rural, suburban, urban). The matching criteria for similar students included: gender, ethnicity, grade level, subject area, starting score ($\pm$ 1 point) and testing time period.

The NWEA returned the finalized VCG data set to this researcher in May 2017. The VCG was delivered pre-organized into eight sections by testing time period: 1) Fall 2010 to Spring 2011, 2) Spring 2011 to Fall 2011, 3) Fall 2011 to Spring 2012, 4) Spring 2012 to Fall 2012, 5) Fall 2012 to Winter 2013, 6) Winter 2013 to Fall 2013, 7) Fall 2014 to Spring 2015, and 8) Fall 2014 to Winter 2015. An important note is that these testing periods were not always chronologically consecutive (i.e., Fall to Winter, Winter to Spring, or Spring to Fall); one reason being, the RHS did not institute winter testing until 2013.

The original study group data set consisted of 57 unique RHS Students (Table III); however, not all 57 students had multiple test scores to compare in each of the three subjects (language, math and reading). Of the 57 unique students in the study group, 52 had multiple language scores, 52 had multiple mathematics scores, and 54 had multiple reading scores. As seen in Table III, of the 52 students with multiple language scores, a total of 43 were successfully matched with a VCG.

Table III: Summary of Study Group Data Set & Process of VCG Matching

	Language	Mathematics	Reading
Total N	57		
N	52	52	54
N with VCG	43	47	51
N without VCG	9	5	3
- *Testing time*	5	2	2
- *Unable to match*	4	3	1

Of the nine students who were not matched with a VCG in language, five did not match because their testing times did not align with any of the eight testing periods mentioned above. In these cases where a student did not match because of testing time, the student's testing times did not align due to an extended period of absence from school, which most often was a case where the student left school for an extended period of time to undergo addiction treatment. The four remaining students without a matched VCG in language had scores in the appropriate testing periods, but the NWEA was unable to identify at least 45 matches based on the matching criteria mentioned above. Standard practice when the NWEA assembles a VCG is to include study participants who obtain at least 45 matches, and the maximum number of matches is set at 51, even if more matches are possible. In the end, the NWEA successfully identified 49.3 matches on average for every one matched study group participant in each of the three subject areas. All VCG matches were unique and not duplicated or used as a match for more than one student.

Data analysis began in late May 2017. The raw growth of students in the study group were compared to the mean growth of their matched VCG. The mean growth and standard deviation of each VCG was pre-calculated in the data set provided by the NWEA. Using the data analysis tool pack in Microsoft ® Excel for Mac, this researcher conducted a series of paired t-tests to compare the means between the study groups and matched VCGs. The paired t-test was chosen because of the matched nature of the study group and comparison group [103]. One downside of the t-test is that small sample sizes could increase the likelihood of completely missing or over-emphasizing variation between the groups [103].

During data analysis it was determined that the study group data set in relation to the comparison group, displayed evidence of heteroscedasticity, and was therefore eligible to undergo a square root data transformation [104]. The square root transformation of the data was conducted and consisted of three steps; 1) added a certain number to every academic growth score to ensure that each score was in the positive range, 2) calculated square root of every academic growth score, and 3) conducted paired t-test on newly transformed data [104]. In step one, the number fifty (50) was added to every growth score because the lowest growth scores were found to be approximately -40.

The primary limitation of the second research question was the study group was compared to a VCG comprised of students who were not necessarily in recovery from SUDs. If the study group displayed higher or lower levels of academic growth compared to the VCG, it could be due in part to the prevalence of SUDs in the study group population. The third research question will explore the relationship between academic performance and recovery success among the RHS students.

Methods Research Question #3

To what extent does academic growth among Recovery High School students differ, relative to their VCG, based upon each student's recovery success (relapse, no relapse) during the corresponding time period?

To answer the final question, academic growth was calculated and paired t-tests were conducted using the same methods in the previous research question. Except now, for each student in the study group it was determined whether or not they experienced a relapse during the testing time period (as measures by the GAIN-SS SDScr). The GAIN-SS SDScr is comprised of five

questions resulting in a final score called SU Month, which ranges from zero (no relapse in prior month) to five (severe relapse in prior month). Students in the study group were determined not to have relapsed if they had an SU Month score <2 during the corresponding academic testing period, and were determined to have experienced a relapse if any of their SU Month scores were ≥2 during the corresponding academic testing period. This cutoff was selected because an SU Month score of one (1) could indicate the student experienced withdrawal symptoms, and does not necessarily indicate the individual was actively using drugs or alcohol during that time.

The final results are presented as six statistics; two for reading, two mathematics and two language usage. The two t-statistics for each academic section represent the group of students who relapsed and the group who did not relapse. It was hypothesized that the students who successfully maintained their recovery success and did not relapse (SU Month score <2) would display higher levels of academic growth, relative to their VCG, than students who did not successfully maintain their recovery success and experienced a relapse (SU Month score ≥2).

Chapter 5: Results

The study group in Section II of this document consisted of 57 unique students who attended RHS between Fall 2010 and Winter 2015 (Table IV). These 57 students in the study group were nearly evenly split between female (49.1%) and male (50.9%), and the percentage of the group that identified as non-Hispanic white was 82.5%. More than half of the sample (54.4%) were in grade 12, about a quarter (26.3%) were in grade 11, with the remaining split between grades ten (17.5%) and nine (1.8%).

Table IV: Demographic Summary of Study Group Participants in Section II

Description	N	% of Population
Students	57	100.0%
Gender		
Female	28	49.1%
Male	29	50.9%
Ethnicity		
Hispanic	1	1.8%
Black	2	3.5%
Multi-ethnic	2	3.5%
Not Specified or Other	5	8.8%
White	47	82.5%
Grade		
Nine (9)	1	1.8%
Ten (10)	10	17.5%
Eleven (11)	15	26.3%
Twelve (12)	31	54.4%

Results Research Question #1

The first research question looked at all test scores from the 57 students in the study group and classified each score as 'Below Average', 'Average' or 'Above Average'. These 57 unique students contributed a total of 43 testing periods in language usage, 47 in mathematics, and 51 in reading. Each testing period represents two separate testing times, and so there were a total of 86 test scores in language usage, 94 in mathematics, 102 in reading, for an overall total of 282 test scores (Table V). Please note, the unit of analysis in Table V are number of test scores, not number of individual students.

Mathematics had 80.9% of scores classified as 'Average' during test time one and 78.7% during time two, while 4.3% were classified as 'Above Average' in both time periods. In a perfectly normal distribution, one would expect those figures to be 68% and 16%, respectively. Of all test scores across the three subject areas, the total percentage of students classified as 'Above Average' grew from 4.3% to 9.2% of the population.

Table V: Classification of Study Group Academic Test Scores Using NWEA National Norms

	Time 1		Time 2	
	N	% of Group	N	% of Group
Language	43	100.0%	43	100.0%
Below Average	3	7.0%	5	11.6%
Average	38	88.4%	31	72.1%
Above Average	2	4.7%	7	16.3%
Mathematics	47	100.0%	47	100.0%
Below Average	7	14.9%	8	17.0%
Average	38	80.9%	37	78.7%
Above Average	2	4.3%	2	4.3%
Reading	51	100.0%	51	100.0%
Below Average	3	5.9%	6	11.8%
Average	46	90.2%	41	80.4%
Above Average	2	3.9%	4	7.8%
Total	141	100.0%	141	100.0%
Below Average	13	9.2%	19	13.5%
Average	122	86.5%	109	77.3%
Above Average	6	4.3%	13	9.2%

Results Research Question #2

The second research question looked at academic growth of the students. To assess growth, the 282 test scores (141 testing periods) were analyzed. Of the 141 testing periods, 43 were from language, 47 from mathematics and 51 from reading (Table VI).

Table VI: Academic Growth of Study Group Compared to Matched VCG

	Language	Mathematics	Reading
N	43	47	51
Study Group Average Raw Score (SD)	224.1 (14.1)	230.3 (16.7)	226.8 (11.9)
National Norm Average Raw Score (SD)	222.1 (15.8)	235.0 (21.3)	222.3 (17.7)
Study Group Average Growth (SD)	7.115 (0.972)	7.240 (1.145)	7.293 (1.267)
VCG Average Growth (SD)	7.120 (0.155)	7.221 (0.175)	7.092 (0.279)
Difference	-0.005	+0.019	+0.201
p	0.977	0.914	0.278

In all three academic sections a p-value greater than the 0.05 statistical significance level was obtained, resulting in a failure to reject the null hypothesis: no statistical difference between the samples. The average growth of the study group outpaced the VCG in both reading (+0.201, p=0.278) and mathematics (+0.019, p=0.914), but not in language (-0.005, p=0.977).

Results Research Question #3

The final research question was similar to question two, except now it was determined whether or not each student in the study group experienced a recovery relapse during their specific academic testing period.

Of the 141 total testing periods, it was determined that in 49 of the cases the student had experienced a relapse in their recovery, and the remaining 92 cases did not relapse (Table VII). It was expected that the students who experienced a relapse would display lower levels of academic growth compared to students who did not relapse. However, as seen in Table VII, in all six scenarios a p-value greater than the 0.05 statistical significance level was obtained, resulting in a failure to reject the null hypothesis: no statistical difference between the samples.

Table VII: Academic Growth Compared by Relapse Status

'Yes' Relapse	Language	Mathematics	Reading
Total N	49		
N	16	15	18
Study Group Average Raw Score (SD)	225.6 (16.9)	229.5 (18.0)	227.4 (12.9)
National Norm Average Raw Score (SD)	222.1 (15.8)	235.0 (21.3)	222.3 (17.7)
Study Group Average Growth (SD)	6.968 (1.128)	7.865 (1.143)	7.611 (1.662)
VCG Average Growth (SD)	7.114 (0.108)	7.291 (0.159)	7.168 (0.396)
Difference	-0.146	+0.574	+0.443
p	0.623	0.084	0.299

'No' Relapse	Language	Mathematics	Reading
Total N	92		
N	27	32	33
Study Group Average Raw Score (SD)	223.2 (12.2)	230.6 (16.3)	226.5 (11.5)
National Norm Average Raw Score (SD)	222.1 (15.8)	235.0 (21.3)	222.3 (17.7)
Study Group Average Growth (SD)	7.207 (0.902)	6.974 (1.067)	7.142 (1.010)
VCG Average Growth (SD)	7.120 (0.180)	7.188 (0.178)	7.055 (0.194)
Difference	+0.087	-0.214	+0.087
p	0.631	0.280	0.634

Overall, among the 49 cases where a student relapsed, their average growth outpaced the VCG in both reading (+0.443, p=0.299) and mathematics (+0.574, p=0.084), but not in language (-0.146, p=0.623). Among the remaining 92 cases where the student did not relapse, their average growth outpaced the VCG in reading (+0.087, p=0.634) and language (+0.087, p=0.631), but not in mathematics (-0.214, p=0.280). These results are discussed in the following chapter.

Chapter 6: Discussion & Conclusion of Section II

The first thing that should be discussed about the results from Section II are the statistically insignificant p-values. All p-values in Section II were found to be greater than the 0.05 statistical significance level, which resulted in a failure to reject the null hypothesis in every scenario: no statistical difference between the samples. With that said, no difference between the samples is not altogether a negative finding. It probably would have been overly-optimistic for us to hypothesize that RHS students, even with the most valiant of efforts from teachers and staff, would display statistically higher levels of academic growth compared to their non-drug using peers. More realistically, considering the numerous challenges these RHS students have experienced in their lifetime, it would have been quite reasonable to expect a statistically significant negative academic growth pattern in this population; however, such an outcome was also not found. If anything, it is a testament to the RHS model that their students were capable of growing academically at rates indistinguishable from their non-drug using peers.

From a statistical perspective, there were two primary reasons why the p-values were statistically insignificant. First, although the t-tests conducted assumed unequal variance between the samples, the differences between some of the samples in this analysis were quite large. The variance within the VCG samples were relatively small since these samples were drawn from a large nation-wide pool. The variance in the study groups of RHS students, on the other hand, were relatively large since these samples were drawn from a single-site population. Also, these RHS students experience relapses that can sometimes contribute to drastic swings in their academic test scores, which helps

to explain why the variance in those samples were so large. This leads into the second reason for the insignificant p-values - the sample sizes were too small. If the sample sizes had been larger, the variance in the study group would most likely have been much smaller. It is important to understand that although the sample sizes were small, this data was collected laboriously over the course of five academic years and required efforts from multiple members of the RHS staff. And although the data provided from the study site was somewhat limited in size, it still represented the largest and most complete known dataset of any RHS student population at the time.

Overall, the methodology in Section II of this dissertation had two major limitations; first, this was a single-site analysis, and secondly, all academic testing periods consisted of a brief snapshot in time (test time one to time two). Future research on this topic should expand on this analysis to include many students from multiple RHSs across the country, and compare those students against their non-drug using peers. Another interesting study could be comparing students from various RHSs against one another to better understand any differences between the various RHS programs. The next logical step after that would be to compare the RHS programs against other adolescent-specific recovery models. Finally, a more robust longitudinal analysis of academic growth is needed; one that incorporates as many testing times as possible, but three test times should be the minimum number moving forward, to truly understand the long-term academic growth and recovery success patterns of RHS students.

Section III: Qualitative Assessment of RHS Students & Staff

Chapter 7: Introduction & Purpose of Section III

In this section, an exploratory single case qualitative research methodology is proposed and conducted.

Problem Statement

The academic performance and recovery success of students enrolled in a Recovery High School program is not currently known.

Purpose

The purpose of this qualitative case study was to investigate the perceived connection between enrollment within a distinct Recovery High School (RHS) program and the impact on student's academic performance and recovery success. Participants were recruited from Hope Academy, and were organized into one of two research groups, 1) students enrolled at the RHS, and 2) staff who are employed full-time at the RHS (i.e., Principal, Chief Operations Officer, teachers, recovery coach). The goal was to enroll 40% of the total student population; and also enroll five of the eight total staff members.

Theoretical Framework

This qualitative analysis was based on the Theory of Change model [77, 85, 105], and attempted to address two primary research topics - examine the perceived relationship between students who attend a RHS and the subsequent impact on academic performance and recovery success. Data was collected through one-on-one interviews based on the following five Theory of Change model criteria operationalized within RHSs: 1) minimize "negative" peer influences, 2) promote "positive" peer influences, 3) address destructive behaviors, 4) provide an accredited educational curriculum, and 5) build relationships that promote accountability [77, 85, 105]. This researcher hypothesized that RHS enrollment would be a promoting factor for academic performance growth, and a protective factor against relapse in recovery success.

Chapter 8: Methodology

With the Theory of Change as a starting point, an exploratory single case study methodology was selected because, according to Baxter [106], case studies are ideal when, a) the researcher is attempting to answer "how" or "why" questions, b) subject behavior cannot or should not be manipulated, or c) when the relation between the phenomenon and context are unknown. Case study methodology usually requires the researcher to collect data from multiple sources [107]. This study collected data from three sources, a) pre interview questionnaire, b) one-on-one interviews with RHS students, and c) one-on-one interviews with RHS staff. Previous research has successfully used the case study approach to study young people in recovery [108].

As with the majority of qualitative research, this study purposefully selected the case subjects (students and staff) and study site (Hope Academy) to better understand the relation between the phenomenon and context [106]. The phenomenon of interest in this study are academic performance and recovery success. The relation of these phenomenon within the context of a RHS is not currently known. Section III of this research study received approval from the Indiana University IRB, protocol #: 1703842641.

Research Questions

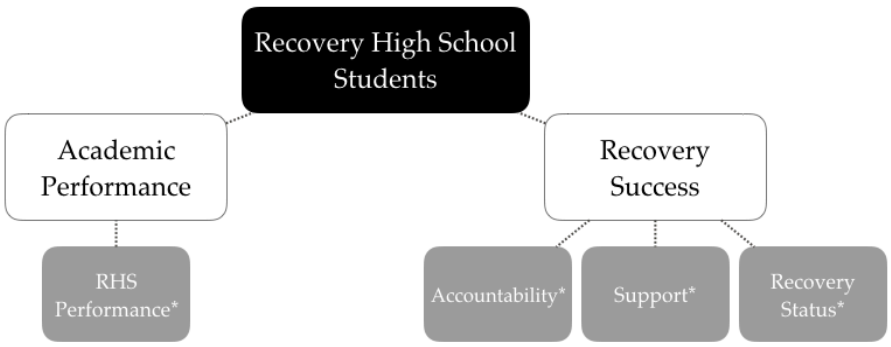
1. How do students and staff at a RHS perceive the school influences the academic performance of students?
2. How do students and staff at a RHS perceive the school influences the recovery success of students?

Code Book & Operational Definitions

To answer these research questions and build the code book (Appendix D) for this study, the five operationalized criteria from the Theory of Change model were used. The code book was organized by nodes, which represent the research questions (parent nodes) and criteria from the Theory of Change model (child nodes). The two parent nodes are academic performance and recovery success. The four child nodes are 1) RHS performance, 2) accountability, 3) support, and 4) recovery status. The first parent node, academic performance, has one child node, number one. The second parent node, recovery success, has three child nodes, numbers two, three and four (Figure IV).

Functional definitions for each parent and child node were developed and organized in the code book. After the nodes were defined, interview questions were written that directly correspond to each of the parent and child nodes. Appendix D contains the code book, which has every node defined with the specific interview questions and probing questions used to explore each node.

Figure IV: Nodes Structure Used in Section III, Pre-Coding Process



*Theory of Change Model Parameter

Student Interview Questions

A brief pre-interview questionnaire was administered at the beginning of the interview (Appendix E). A few of the questions from the questionnaire included; what is your age?; what is your gender?; what is your current grade level?; how long have you been enrolled?; do you go to recovery meetings?; if yes, on average, how many per week?

Essential student interview questions included:

- How long have you been in recovery?
- How long were you in addiction before you enrolled at RHS?
- Do you remember what led to your decision to enroll at RHS?
- Do you recall how you felt about your ability to succeed academically at RHS when you first decided to enroll? How do you feel about your ability to succeed academically now?
- Do you recall how you felt about your ability to succeed in your recovery at RHS when you first decided to enroll?
- What grades did you earn before attending RHS? What grades are you earning now?
- Do you feel attending RHS has helped you grow academically?
- Who provides you with recovery support? Has the amount and/or quality of support you receive changed since enrolling at RHS?
- Do you feel that you are held accountable in your recovery at RHS? Do you feel that your peers are held accountable in their recovery at RHS?

- Do you feel that attending RHS has helped you in your recovery process?

Non-essential student interview questions included:

- Do you have peers who "negatively" influence your recovery? Has the amount of contact you have with those peers changed since attending RHS?
- Do you have peers who "positively" influence your recovery? Has the amount of contact you have with those peers changed since attending RHS?
- What were your family relationships like before enrolling at RHS? What are your family relationships like now?

Staff Interview Questions

Essential staff interview questions included:

- What is your current position at the school and how long have you served in that role?
- Did you specifically seek out this student population to work with, or is your current position something you "fell into"?
- Do you remember what led to your decision to work at a RHS?
- Are you in recovery yourself?
- Do you feel that RHS helps students grow academically?
- Do you feel that student's relationships with their family change after enrolling at RHS?
- Do you feel that students are provided with recovery support?
- Do you feel that students are held accountable in their recovery?

Non-essential staff interview questions included:

- Do you feel that attending RHS influences the amount of contact students have with "negative" peers?
- Do you feel that attending RHS influences the amount of contact students have with "positive" peers?
- Is the concept of restorative practice a philosophy that is practiced by staff members at RHS?
- Are students educated on the concept of Restorative Justice?
- Are staff members educated on the concept of Restorative Justice?

Research Interactions

Participation in this study consisted of an interview, approximately 60-minutes in duration. All student interviews were conducted in a private conference room on the Hope Academy campus by this researcher. Some staff interviews were conducted via telephone for participant convenience. All interviews were recorded using NVIVO ® software operated on a password-protected laptop.

Inclusion & Exclusion Criteria

Prospective student participants were currently enrolled as a student at the RHS for a minimum of 30-days. Students enrolled at the RHS for less than 30-days were excluded from participation. For staff participants, prospective subjects were currently employed full-time by the RHS.

Participation Incentive Structure

All participant incentive payments were placed in a collective pool, where the funds were used to organize a school-wide party. Each student participant received two (2) contributions to the pool worth $25 each. The first contribution was added to the pool once the appropriate informed consent/assent document

was successfully signed and turned in. The second contribution was added to the pool after the student completed their interview.

Staff participants received one (1) contribution worth $25, which was added to the pool after the participant completed their interview. The funds contributed to the pool were tallied after the final interview was completed, and the total dollar amount of $700 was delivered to the school Principal. The proposed incentive structure was pre-approved by the Principal. The Principal's first-hand knowledge of this population made her well-suited to determine the payment arrangement to be fair and just, and would not create undue influence over participants.

Recruitment

A letter of support from the study site can be found in Appendix F. Prospective subjects were invited to participate by presentation of study intentions by this researcher. Permission was granted by administration to visit the school over a two-day period. Interested subjects were asked to complete a brief qualifying questionnaire (Appendix G) based on their enrollment at the RHS for a minimum of 30-days. To identify students for follow-up, he or she was asked to provide their first name and either a telephone number or email address. The study group sample was selected based upon results of the qualifying questionnaire. To recruit staff participants, permission was granted to meet with staff members during their individual free time throughout the normal school day or after school hours.

Risks, Benefits & Protections

The possible risk of this study to participants was the accidental release of his/her interview responses to someone not authorized to view that information. Also, subjects may have felt uncomfortable responding to questions regarding their recovery experiences and reasons for attending a RHS. Any subjects who felt uncomfortable responding to any question were given the opportunity to decline response with no penalty for doing so. No participant in this study declined to respond to any question. Other than the school-wide party, participation in this research did not result in any benefit to participants directly, but potential benefit to others, in the form of improved programming and services at the RHS, could result from the knowledge gained from participation.

Information from this study in which participants might be identified remained confidential. All original paper copies of completed survey responses were kept in a folder located in a locked cabinet inside a secure office until a digital PDF copy was made and stored securely in SpiderOak®, a HIPAA-compliant cloud-based data encryption and storage solution. The paper records were then destroyed in a cross-cut shredder. All digital records, which included audio interview recordings, were also stored in SpiderOak®.

Only the investigator and members of this research team had access to these records. All identifiers were removed from the data prior to any analysis or reporting of results. If any information learned from this study is published, participants will never be identified by name.

Informed Consent Process

For student subjects who consented to participate, the consent process was as follows: there were two packets provided to the administrative assistant at the RHS; one contained consent documents for students over 18 who could provide informed consent (Appendix H), and the other for students under 18, which contained a letter of assent for the minor (Appendix I) and a letter of consent to be signed by their parent or guardian (Appendix J). Both packets were clearly marked either "Students under 18" and "Students over 18." The individual distributing these packets handed the packet to the potential participants without any instructions to open and review.

If the participants had any questions about the study they were given this researcher's contact information. A deadline of two-days was set for the students to return the informed consent documents. For staff members who consented to participate, the consent process was simply his or her execution of the consent letter (Appendix K).

Data Collection Procedure

Permission to conduct this research was initially granted by the RHS administration in March, 2017. The administration requested a study protocol be submitted to their Board of Directors for final approval. The board approved this study protocol at their quarterly meeting on April 25th, 2017, and shortly thereafter the data collection procedure was initiated by this researcher.

Two types of packets were delivered to the front office of the study site on May 12th, 2017. One packet contained consent documents for students over 18 who could provide informed consent, and the other type was for students under 18 and contained letters of assent for the minor and letters of consent to be

signed by their parent/guardian. The principal and her administrative assistant were instructed to only hand the packet to the potential participants without any instructions to open and review. The appropriate consent documents were distributed to potential participants on May 15th, 2017 and once again two days later. Signed consent letters were returned to the administrative assistant where the documents were temporarily stored in a locked office on site. At this time there were a total of 35 students enrolled at the RHS. Letters were distributed to the 26 students who attended school on May 15th and 17th, of which 18 letters were successfully returned, and a total of 13 student interviews were eventually conducted. Of the five students who completed the necessary consent/assent documentation but did not interview; three were absent from school, one had a conflicting commitment, and one decided to opt out when the principal went to retrieve them from class.

The 13 student interviews were conducted during normal school hours on May 22nd and 23rd, 2017. Interviews were scheduled to begin at 9:30am both mornings. This researcher arrived early to set up and was greeted by the principal upon arrival. The principal then escorted this researcher to a private conference room directly adjacent to her personal office. The school administrative assistant had created a list beforehand of all 18 students who successfully returned the appropriate consent/assent letters. The principal used this list to pull students out of class one at a time, where she then escorted the student to the private conference room and introduced the student to this researcher.

This researcher started with a verbal review of IRB protocol and overview of study purpose, and then re-confirmed one last time the execution of the appropriate consent/assent documents. The pre-interview questionnaire was then administered. The student was asked again if they had any questions. No participant had any questions at that time.

The student was then asked verbally for permission to begin recording; after which, the student interview question protocol was initiated. Interviews were recorded on this researcher's password-protected Mac Book Pro. There was pen and paper for back up in case there were any technical issues, but no technical issues were encountered. These digital recordings were immediately uploaded and stored securely in SpiderOak®.

The data collection procedure for staff members was similar to that of the students, with a few exceptions. The principal gave permission for this researcher to initiate contact with staff members during normal school hours and schedule interview appointments; however, she requested that all staff interviews be conducted after school hours or during their regularly scheduled break time. On these two days there were a total of eight full-time staff members, excluding one nurse, who was a third-party contractor. This researcher initiated contact with five staff members, either in the school hallway or in their classrooms or offices, on May 22nd and 23rd, 2017. All five staff members agreed to participate in this study. The staff members not approached to participate in this study were all three teachers at the school. The two teachers approached to participate were randomly selected from the pool of five total teachers. The other three staff interviewees, a recovery coach and two administrators, were purposefully chosen because of their unique and prominent role within the school.

One staff interview was conducted in the private conference room on the school campus on May 22nd, 2017. Two other staff interviews were conducted over the telephone on May 24th and 30th, 2017. The last two staff members requested they be interviewed at the same time, and that interview was conducted over the telephone on May 25th, 2017.

According to Carr (2001) [109], the telephone interview gained popularity in healthcare research as a method to conduct valid and reliable qualitative analysis; especially when, 1) the researcher makes face-to-face contact with the participant before the telephone interview is conducted, 2) the resulting data can be audited, and 3) the participant needs a flexible means of communication due to time or location constraints. Some staff members reported time constraints, which made the telephone the best method to conduct these specific interviews. All telephone interviews were successfully recorded using a MacBook Pro. The quality of the resulting telephone recordings was very similar to that of the face-to-face recordings.

All staff interviews began with a review of IRB protocol and overview of study purpose. This researcher then re-confirmed one last time the execution of the appropriate consent document. The staff participant was asked again if they had any questions. No participant had any questions at this time. This researcher then verbally asked the staff participant for permission to begin recording; after which, the staff interview question protocol was initiated. Interviews were recorded using this researcher's password-protected Mac Book Pro. There was pen and paper for back up in case there were any technical issues, but no such issues were encountered. These digital recordings were immediately uploaded and stored securely in SpiderOak®.

Validity

For the purposes of this study, validity was whether the data collected was accurate and truthful [110]. More simply, validity was the ability as a credible research team to hit the "bull's eye". To display external validity in this study, two important acknowledgments must be made upfront: 1) this study was exploratory and did not attempt to establish causal associations, and 2) the results are not generalizable beyond the strict confines of this study.

Internal validity in this study was demonstrated by thoroughly documenting the research methodology, maintaining transparency, and by gathering data from three sources, 1) pre-interview questionnaire, 2) one-on-one interviews with students, and 3) one-on-one interviews with staff. By conducting one-on-one interviews with students and staff at the RHS, it was possible to cross-check facts, compare accounts, and therefore obtain a more accurate depiction of the facts. In addition, the node structure, interview questions and resulting themes were evaluated for face and content validity by three separate individuals on this research team.

Reliability

For the purposes of this study, reliability was whether the data collected was stable over time, and whether the results were reproducible under similar circumstances [110]. Documenting and making the research methodology transparent were the first steps to establishing reliability. Reliability was further demonstrated by strict adherence to the data collection processes approved by the Indiana University IRB. Interrater reliability testing was the primary means by which this study demonstrated reliability. The process and results of the interrater reliability testing are discussed in the following sub-chapter.

Data Analysis Procedure

A single database for all study data was established and organized using the software NVivo ® 11 for Mac. The audio recordings of interviews were then transcribed into text using the same software. The data was coded after the interviews were transcribed. Coding of the data involved reading the entire transcript of each interview, and categorizing the responses into the individual nodes outlined previously in Figure IV. As a reminder, the two parent nodes were academic achievement and recovery success.

The 'messiness' of qualitative data suggests that structured interviews rarely adhere to the order of the researcher's pre-written questions. Therefore, coding these interview responses could be a subjective endeavor and possibly open to the researcher's interpretation. Therefore, to ensure a high degree of reliability in the coding process, two individuals from the research team coded interview transcripts and the subsequent results were compared for interrater reliability [111].

In this study, the statistic used for interrater reliability testing was Cohen's Kappa, which can range from -1 to +1, and where 0 is representative of the agreement between the two raters anticipated to occur by random chance [111]. Kappa scores <0 are possible but rare [111]. McHugh (2012) suggests a Kappa value >0.90 should be the goal when conducting qualitative health research, especially when "results of the studies may change clinical practice in a way that leads to poorer patient outcomes" (pp. 282) [111]. As seen in Table VIII, an interpretation of a Kappa score equal to one would indicate absolute perfect agreement between the two raters.

Table VIII: Interpretation of Kappa Values for Interrater Reliability [111]

Kappa Value	Agreement	% of Data Considered Reliable
≤0	None	0%
0.01 - 0.20	None to Slight	0 - 4%
0.21 - 0.39	Minimal	4 - 15%
0.40 - 0.59	Weak	15 - 35%
0.60 - 0.79	Moderate	35 - 63%
0.80 - 0.90	Strong	64 - 81%
>0.90	Almost Perfect	82 - 100%

A PhD candidate from the Indiana University Fairbanks School of Public Health was recruited to help conduct interrater reliability testing. This newly recruited researcher underwent training on how to perform interrater reliability testing using NVivo ® 11 software, as well as a training session to familiarize the researcher with background information and purpose of this study.

Interrater reliability testing occurred in three distinct rounds (Table IX). In round one, the two researchers each coded one student and one staff interview. A coding comparison report was generated using NVivo ® 11, which resulted in a Kappa value of 0.69. The two researchers then met to discuss coding disagreements and make any necessary modifications to the code book. After the disagreements were discussed and recoded a second report was generated, and the final Kappa value at the end of round one was 0.95. Three total rounds of testing were required to reach the goal of a before discussion Kappa value of 0.90. Of the 18 total interviews conducted, 13 were ultimately coded by two researchers, and five by a single researcher using the newly revised code book.

Table IX: Summary of Interrater Reliability Testing

Round	Number of Interviews Coded		Kappa Value	
	Student	Staff	Before	After
1	1	1	0.69	0.95
2	4	2	0.71	0.94
3	3	2	0.92	0.96

Once the coding of all interviews was completed, word frequency clouds were generated, which presented the top 50 words used by all interviewees at each node. The word clouds excluded innocuous words, such as, "and", "the" or "too", and were used as a starting point to explore the primary themes found within each node. All word clouds and corresponding themes are presented in the following chapter.

Chapter 9: Results

The final study sample consisted of 13 students and five staff members. Of the 13 students, seven were male and six were female (Table X). The average age of the student participants was 17.1 years old, and they had been enrolled at the school for an average of 13.1 months. These students reported their age of first drug use as early as ten years old, and as late as 14, with the average being 12.2 years old. These findings indicate the average student participant had been using drugs and/or alcohol for almost five years.

The most interesting finding in Table X was the number of students who reported attending recovery meeting on a weekly basis. One of the expectations upon enrolling at most RHSs, including Hope, is that a student will attend at least two recovery meeting per week; however, five students reported attending no recovery meetings whatsoever, and a mere four students reported meeting the requirement of two meeting per week. One student declined to respond whether or not they attended recovery meetings. The average interview produced a transcription of a little more than 1,300 words a piece.

Table X: Characteristics of Student Study Participants in Section III

ID #	Gender	Age	Grade	Enrolled (months)	Attend Recovery Meetings	Avg. Meetings per Week	Words Transcribed
01	Male	17	12	9	Yes	3	2,068
02	Male	16	12	36	Yes	1	576
03	Male	18	11	2	No	0	1,139
04	Male	16	11	3	Yes	1	931
05	Female	18	12	30	No	0	1,673
06	Female	16	10	7	Yes	4	1,251
07	Male	16	10	4	No	0	331
08	Female	18	12	30	Yes	2	3,325
09	Female	17	11	18	Yes	1	1,111
10	Female	18	12	8	No	0	2,041
11	Female	17	11	12	No	0	1,297
12	Male	18	11	6	Yes	2	1,040
13	Male	17	11	5	-	-	547
Mean	-	17.1	11.2	13.1	-	1.2	1,333

Five staff members were also interviewed, and the characteristics of these study participants are outlined below in Table XI. Of the five staff members interviewed, one was a recovery coach, two were teachers and two were administrators. A finding of interest within this group was that three of the five self-identified and being in long-term recovery from drugs and alcohol. Also of note, the two administrators requested they be interviewed together.

Table XI: Characteristics of Staff Study Participants in Section III

ID #	Role	In Recovery	Employed (range in years)	Words Transcribed
01	Recovery Coach	Yes	3-5	3,489
02	Teacher	Yes	6-9	2,045
03	Teacher	Yes	1-2	1,508
04	Administrator*	No	3-5	756
05	Administrator*	No	10+	784

*Requested to be interviewed simultaneously.

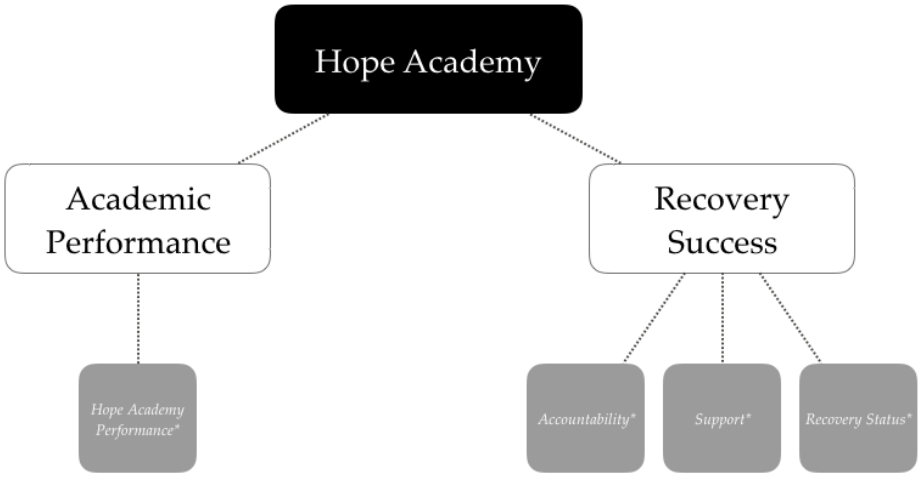
The coding process of all 18 interviews was outlined in the previous chapter; however, it is important to briefly discuss how the node structure evolved during the course of the coding process. Before the coding process began, the node structure consisted of two parent nodes (Academic Performance and Recovery Success), which represented the two research questions for this study, and four child nodes, which represented the domains within the Theory of Change Model (Figure V).

Three new child nodes were identified during the coding and reliability testing process. A new node was added when all three of the following conditions were met: 1) both of the researchers conducting the coding reached consensus that a new and discrete theme emerged during the coding process, 2) the new theme could be structured as a child node to one of the original nodes, and 3) the new theme was referenced by at least 25% of the study population.

The first of the three new nodes was Original High School, which became a child node to Academic Performance (Figure V). This node was identified after five students discussed their experiences at schools they were enrolled prior to RHS. Often these references to their previous school were mentioned in the context of comparing their past experiences to current experiences at RHS. As seen in Table XII, those five interviewees (i.e., case sources) made a total of 41 references to this node.

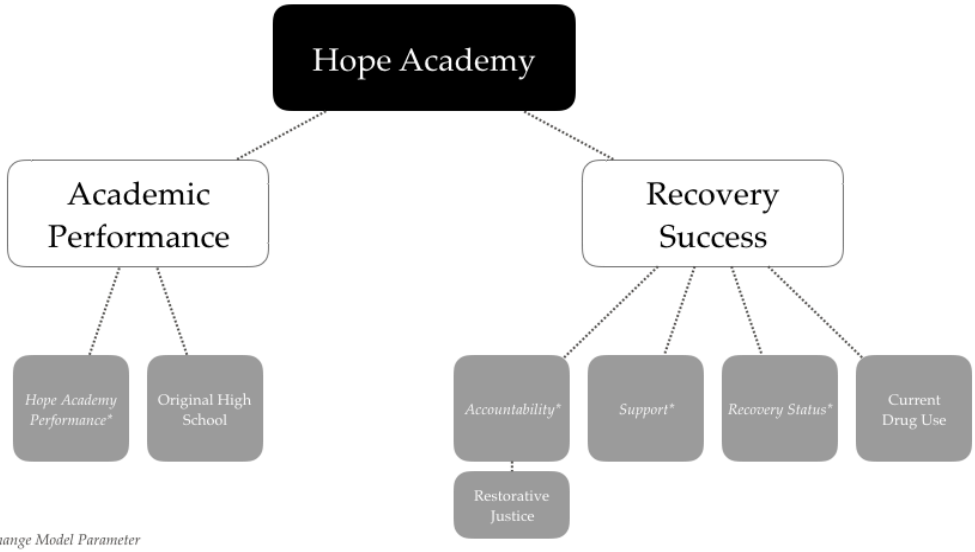
Figure V: Nodes Structures Used in Section III, Pre & Post Coding Process

Node Structure Pre-Coding:



*Theory of Change Model Parameter

Node Structure Post Coding:



*Theory of Change Model Parameter

Table XII: Case Source & Reference Counts by Node

Nodes	Case Sources	References
Academic Performance	15	106
Hope Academy Performance*	18	220
Original High School	5	41
Recovery Success	7	33
Accountability*	15	111
Restorative Justice	6	50
Recovery Status*	14	56
Support*	11	78
Current Drug Use	13	59

*Theory of Change Model Parameter

The second of the three new nodes was Restorative Justice, which became a child node to Accountability (Figure V). The node, Restorative Justice, was identified after four staff members used the term to describe their approach to holding students accountable. There were also two students who directly referred to the concept of Restorative Justice without using the term specifically. This node was references a total of 50 times by these six individuals (Table XII).

The final of the three new nodes was Current Drug Use, which became a child node to Recovery Success (Figure V). A total of 13 of all 18 interviewees described personal drug use or first-hand accounts of student drug use while enrolled at RHS. These 13 individuals made a total of 59 references to this node (Table XII).

The results presented below were organized by interviewee responses to each of the nine nodes outlined in Figure V and Table XII, and the word clouds are comprised of the top 50 words from all 18 interviews coded to that node.

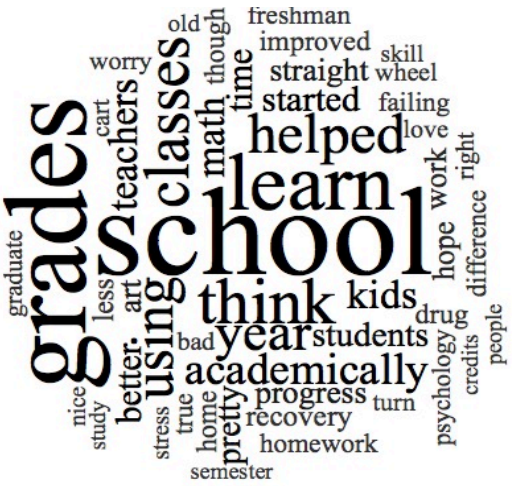
Node 1: Academic Performance

Code book definition: Mentions of academic performance while enrolled at Hope Academy, and academic grades before and after enrollment. This also includes the number of absences from school the student had before and after enrollment, as well as engagement level in school before and after enrollment (i.e., "I pay attention more now."). Word cloud for this node is found in Figure VI.

Student interview question: Do you feel that attending Hope Academy has helped your academic performance?

Staff interview question: Do you feel that Hope Academy helps students grow academically?

Figure VI: Word Cloud - Academic Performance



Student responses:

“Oh they were shit… D's and F's and if I was lucky some C's. I don't think I got anything higher than a C+. So they have improved here, they have. Now they're all A's, B's and I think one C. And it feels weird and scary because it's like are you sure that's true.”

“My freshman year I got straight A's because I was taking my friend's ADHD medication…My grades are way better than I thought they would ever get. They're not straight A's like my freshman year but they're a lot better, like A's and B’s.”

“Some of my grades are really good… But it's nice now because they teach a different way than they do in regular school. I actually learn cool stuff that I want to learn… It's easier because we have smaller classes and it's less stress. You can ask more questions and get more help. I like the atmosphere and the amount of students here.”

“It's helped my grades and I can actually remember the stuff I learned in school, which is nice. Overall I feel less stressed about everything.”

“…I didn't go to school most of the time, when I did go to school I was either in ISS (in school suspension) or in the office or in trouble or something. Not doing my work. They just went down really fast. And once I came over to Hope they talked to me, and the teachers get to know their students really well cause its such a small school. They knew what helped me learn best and how I did best and what kinds of things I needed to do which raised my grades a lot.”

“Academically this school has helped me because I was sober while I was on probation, it helped me get my grades better. And actually do my homework, and actually be at school, not skip school like I used to at my old school.”

“Yeah they definitely helped me get back on track academically. I had pretty good grades until I started using again, but before I came here I dropped out of school. It saved me big time.”

“Now the last time I looked it was like two F's, one D, and like a C or something. I don't know why. I feel like I don't give a fuck here because I've got too much shit to worry about. Here it's recovery and academics, and I ain't too big on recovery right now. I just want to get my school done and be a happy little camper, but I've got to worry about drug tests here.”

“I wasn't really worried about my grades because even when I was using I was making C's… Now I make A's and B's and C’s.”

"I was doing really poor because it was all online schooling and I'm way better with face-to-face. I've got ADHD so if I sit in front of a screen I'm prone to fuck off instead of doing what I'm supposed to do. By the end of my freshman year I had 121 absent class periods, all unexcused. Now I have one unexcused absence…"

"Oh my god I had three credits coming here. I would just sleep in my classes and not care. I wouldn't turn in anything, it was stupid…I try to maintain all A's now."

"They're mostly A's and B's… I got all my grades up to A's and B's so it's a big difference. When I'm not using you can tell just by my grades. Because when I am I just don't really care about grades, it's not my top priority."

"They're about the same. Feel like I've learned more even though my grades are the same, but now I'm not bullshitting the process."

Staff responses:

"I think there's a caliber of kid here that come to us without good study skills, a lot of other baggage that causes them not to study at home and turn in homework, or even do homework at all."

"I think so… I know we have really smart kids here, they've done a lot of damage to themselves but they're pretty intelligent kids really."

"Yes."

"Yes."

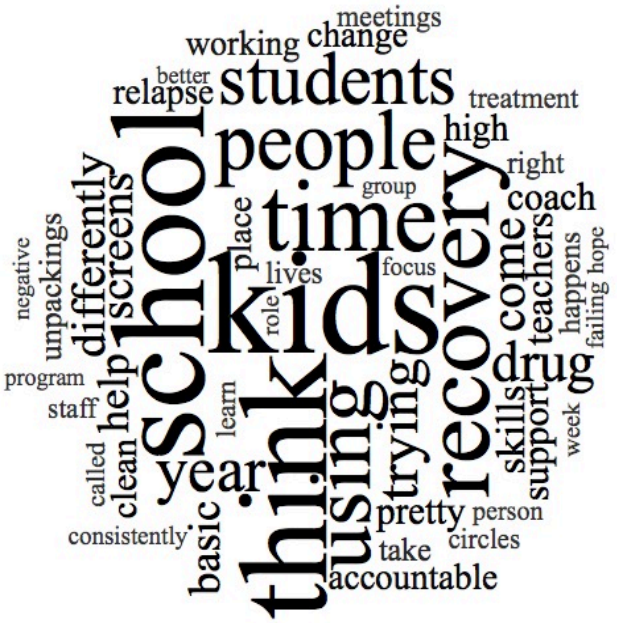
Node 2: Recovery High School (RHS) Performance

Code book definition: Mentions of how the interviewee viewed the performance of the school; included, school policies, practices or general operations that directly impacted students. Also, the ability of teachers and administrators to address destructive student behaviors, while providing an accredited educational curriculum. Word cloud for this node is found in Figure VII.

Student interview question: Do you feel that attending Hope Academy has helped you grow academically?

Staff interview question: N/A

Figure VII: Word Cloud - RHS Performance



Student responses:

"It's not really individual anymore… but then I don't necessarily want to say that they lie but if I was someone donating money and I knew how it really was I probably wouldn't fund this school. This school is kind of shitty. This is quote unquote a recovery high school but the staff doesn't want to admit that kids are using drugs, that no-one is really sober, like they just want to turn a blind eye. "

"…stop trying to take it from the perspective of this is a normal high school because in all reality it's not a normal high school. It's definitely not just a school that you can just compare to a fucking IPS (Indianapolis Public Schools) place or something. There's going to be different people and everything and you need to accommodate that and understand it."

"It used to be a lot different. There was a clinical specialist named Dr. Z. He used to do unpackings so pretty much every time someone would relapse there would be a lot of support and a lot of processing to go along with that. Now if somebody relapses it's like ok we're going to put that on the record get back to class kid"

"…they've been kind of slacking since I got here. Not really the teachers, more of the higher up staff. Not (staff member name) the Recovery Coach. Principal is more worried about your dress code than your recovery. I don't get it."

"It's really falling apart to be honest. That's one of the biggest things that they used to do when people relapsed or weren't doing well in their recovery, they could talk to him. There were two recovery coaches and one of them just quit working here to work at Fairbanks (recovery unit) full time. And now there's just one recovery coach here. He is overwhelmed. He is going way beyond his job description. They're putting a lot on him. They've given him more of a role of dean than a recovery coach. He's more of the guy who searches people down and catches them smoking outside, takes their phone. He's the one who sniffs out people doing bad things. He doesn't really talk much about recovery. They just tell him to do it so he does. Seems like his focus is pretty much everything. Things are really really falling apart here."

"It was sad how far they had to change things to make it look ok. I feel like Hope Academy has become a lie. They care more about appearance but they don't do anything. They say its really helpful with recovery but nowadays its just an alternative school called a recovery school."

"It's still shit, but no kid like school. I like some teachers, some teachers are pretty cool, but some just aren't able to connect the dots for you. For a lot of kids it's not a good school experience… If you're not really into recovery this is a terrible place, and if you're actually trying it's pretty good for those people."

"If you want recovery it's good, it's a good school, you'll probably like it. But if you don't then you won't like it."

Staff responses:

"So with 40 kids and one recovery coach, I do try to make contact with the kids as often as I can, but it's with everything else, those that are struggling take up a vast amount of my time, there's probably four or five kids that take up 30% of my time…"

"We're pretty limited in terms of the support staff we have and considering that I think we do a pretty darn good job."

"We're not in a business where you're going to see the kinds of outcomes that you like to read about in books, you know? Probably not many of these kids are going to leave high school and be clean and sober for the rest of their lives. But that's what Hope Academy does, right, we're recovery so we get kids clean and sober… But most of these kids when they get here, they are extremely wounded, and we've helped them to heal. Which with the kinds of things they've been through is a life long process."

"I think that as long as we are still focused on quantity over the true fit of a student for our environment, we are going to continue to struggle and feel like more of an alternative school."

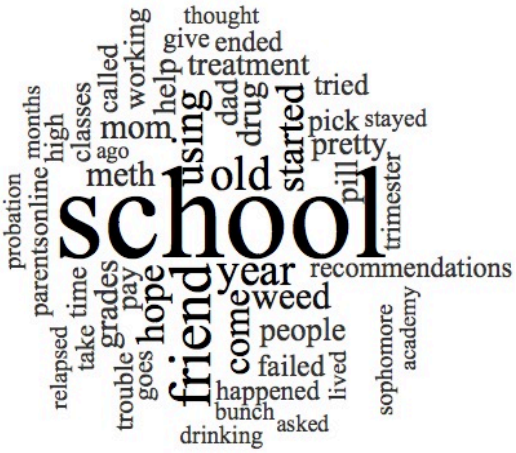
Node 3: Original High School

Node identified during coding process. Code book definition: Mentions of student experiences at one or more of the schools they attended before enrolling at RHS. Word cloud for this node is found in Figure VIII.

Student interview question: N/A

Staff interview question: N/A

Figure VIII: Word Cloud - Original High School



Student responses:

"My dad doesn't want me to go back to (original high school)… he just doesn't want me in (original high school) because that's where I know where all the drugs are at."

"I knew anything would be better than the old school that I was at. I was just ready for a break for a while."

"I was on probation a year ago and they (original high school) gave my dad recommendations for me and this was one of them. Since I kept getting into trouble he was like yeah you're going here (RHS)."

"I thought it (RHS) sounded really cool… I really didn't want to go back to public school."

"If I wasn't here at Hope I would definitely be friends with those people, those were the people I lived around and went to the same school as me."

Staff responses: N/A

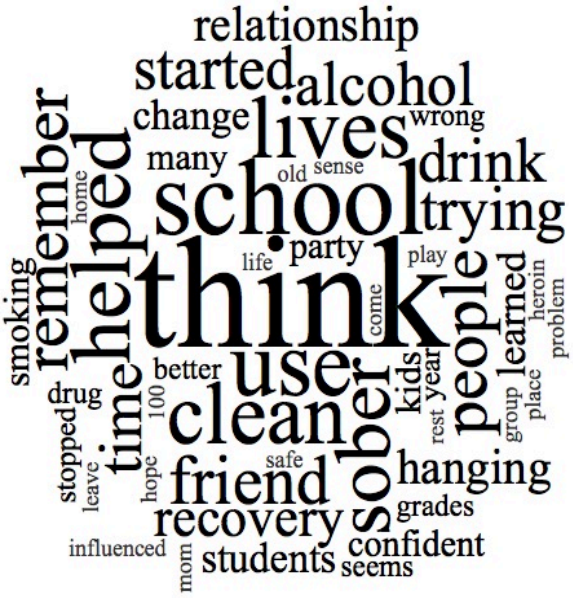
Node 4: Recovery Success

Code book definition: Mentions of personal recovery success, or lack thereof, while enrolled at RHS. Recovery is when an individual voluntarily attempts to maintain a lifestyle abstinent from drugs and alcohol, & actively utilizes resources to prevent & reduce the impact of a relapse episode. Word cloud for this node is found in Figure IX.

Student interview question: Do you feel that attending Hope Academy has helped you in your recovery process?

Staff interview questions: N/A

Figure IX: Word Cloud - Recovery Success



Student responses:

"It definitely has because it gets me around a group of people who are sober and now I have sober friends besides my girlfriend."

"…a doctor here at the time named Dr. Z helped me get over a lot of shit and that definitely calmed me down a lot."

"Yes I 100% think it has helped me in my recovery. I have people I can talk to and it's helped my relationship with my family and our communication. It's helped my grades and I can actually remember the stuff I learned in school, which is nice. Overall I feel less stressed about everything."

"I probably wouldn't be in school, I would probably be down at the beach with some friends, and I would probably be on something. And my parents would be freaking out and trying to get me back into treatment. The whole cycle that I always go through again. It stopped the cycle."

"I used to be the biggest danger in my life to me but now I'm not."

"…my relationships with my parents has gotten a lot better just because of my activities and my behaviors have changed. I've gained trust from them."

> "If I weren't here at Hope I honestly probably would have dropped out. Yeah definitely dropped out because that was my plan. When I left here the first time and things were going really bad for me I was just like I'm just going to drop out."

> "I wouldn't be sitting here right now doing this if it wasn't for them (Hope Academy). I don't even think I would be in school to be honest. I would be a rebel going against what my parents say and I probably wouldn't even have contact with them. I would be out using if it wasn't for them."

Staff responses: N/A

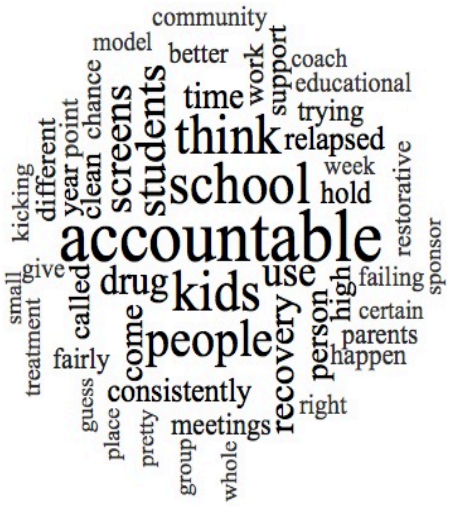
Node 5: Accountability

Code book definition: The degree to which a student was held responsible when/if they experienced a relapse in their recovery while enrolled at RHS. Also, the degree to which a student is held responsible for general disciplinary issues within the school. This includes the people who hold the student accountable (i.e., peers, staff members), as well as the methods by which the student is held accountable (i.e., drug testing, suspended from school). Word cloud for this node is found in Figure X.

Student interview question: Do you feel that you are held accountable in your recovery at Hope Academy?

Staff interview question: Do you feel that students are held accountable in their recovery at Hope Academy?

Figure X: Word Cloud - Accountability



Student responses:

"And sometimes I feel when people get that information they don't do anything with it. Like oh no this person has been clean for a long time why do they want to use now, ohh well… other students that have been here for years, they've told me that its been slowly decreasing (Hope's focus on recovery). Yeah and thats the point of the school, so it's kind of weird because at first you would think academics would decrease at this place."

"The only thing that keeps people held accountable for using is you calling their parents, and it seems that's the only reason they don't want to get caught, it's more like instead of hey you relapsed, are you hurt, is something wrong, its more like you relapsed why would you do that, and while you're probably feeling pretty shitty for relapsing we're going to call you're parents. And I understand the parents have to be aware but I don't feel like they should be as much unless its a continuous relapse. There used to be something here last semester called support circles and they're not here anymore."

"I feel like this school is really biased, I could be wrong just because it's so small. There's two groups, there's the group who want to be clean or who have been clean for a long time, and then there's the group of people who actively use or obviously don't give a fuck. The people who use and want to be clean are held accountable, but the people who don't actively give a fuck, like actually use and don't, they are not held accountable. Or if they are held accountable it's just something small like we're going to call your parents."

“I would say punishment, the recovery expectations, none of it is really consistent with every person. Different things are expected from different students so it makes it hard for all of us to be treated equal.”

“Kind of, it depends on the person, which is not how it should be. If one of the kids that hasn't relapsed in this amount of time and then relapses it's more of a big deal.”

“I don’t know, it’s kind of dependent on the person. If they don’t like one of the students then, you know that sounds very biased, but I’ve seen it first hand. There are students that they like and there are students that they don’t like. Say if person A relapses, they’re like oh he relapsed again, send him down to STARR so they do nothing all day. And then person B relapses, which is a person they like, they’re like oh you relapsed you poor thing, go do your regular classes and we’ll check up with you. You just never know exactly what a person needs and they try really hard to guess that but it doesn’t work out. People who don’t want to be clean shouldn’t be here, and I get they’re forced by their parents. But in their intake they should be asked if they want to be clean and if they’re serious. If not, they should not accept this person.”

“Fuck no. No. They don't really talk to their students, but they do, it's weird. Like if you fail a drug test they used to say something came up on your screens let's talk about it, what happened, you can go to Dr. Z and do an unpacking and find out what led to this, now it's just like yo this came up on your drug screen, we're calling your parents good bye. They just completely switched from giving a shit and putting in more effort to welp here's what you did, here's what we're going to do, good bye. That's pretty much all it is.”

“They used to have, well technically they still do have it, this requirement that you're supposed to go to two meeting a week and have a sponsor and they were going to call your sponsor. The whole time I've been here they never checked up on that. Every now and then they'll say, you need to go to meetings and get sponsors, but then it's like whatever they're not going. They've never really enforced that rule. They just turn a blind eye to it when people aren't doing it.”

“They're like hey we see you failed your drug screen we're going to inform your parents, just wanted to let you know, bye. Or somebody will come up and be like I relapsed, and they'll be like ohh darn, I'll go write that down, we'll talk later.”

“Yes definitely. I understand it's a community and there are certain actions to take but I feel like inconsistency is a big problem I have at this school…Sometimes I do feel there is a little favoritism. Even towards me because I talk with the staff I connect with them more…”

“And then they're like sorry we just can't catch anybody. We can't catch it in time. After a while it seems like a load of bologna. Here's my conspiracy theory. For public image, they don't want to have it on the records that people are dealing drugs here, they don't want it on the record that they're failing drug screens, they don't want people to know they've been getting high in school, and so they disregard it when it happens. They try to test people who are clean so there will be a good ratio of clean screens compared to dirty screens, which they could get if they tested people who are actually using. We're supposed to get two per month, mandatorily, and those are randomly spaced, although usually not. They just get everyone on the same day. Then other people, one week they'll randomly decide to drug screen someone like every single day of the week, someone who isn't using.”

“The consistency here that’s the one problem. There's certain people here that get treated differently. Let’s say I’m messed up right now at school, they wouldn’t be supportive, I would be in trouble. But if one of the others did that, like one of their favorites did that, it’s a whole other story. There’s just not a lot of consistency at this school. Like with dress code, the kids that are 100% sober and never failed a drug test they get away with a lot more than me and some other people.”

“I hate the fact that I'm one of those kids that if I walk in with a dress code, they could call me out on it but they don't say anything until the next person walks in with the same thing. And I don't get in trouble. I just feel there is very little consistency and equality. I'm not the kind of person that wants the whole school to love me and get away with stuff. Because that hurts the community and in turn hurts me because I hear about it and then all these actions and emotions reflect on me. Yeah that action of the other person getting mad about dress code and me not getting in trouble. It reflects on me because they're kind of mad at me but they're kind of mad at the school, but then their attitude goes down, their frustration goes up and that projects on everyone else and it gets messy.”

“Yes I think I am held accountable, if people think I'm acting different or out of the normal I will get drug screened. I do get held accountable for my behavior and I do get called on my shit when I'm screwing around…I feel like there are different levels for different people being held accountable. But overall I think everybody pretty much is held accountable.”

"(Long pause) My friends hold me accountable. The ones who are here. Drug screens aren't really as much of a motivation for me to stay clean anymore but I guess if I relapsed they would show up."

"Yes definitely 100% yes. The teachers, the staff, everyone even your peers hold you accountable. If someone slips up or a small relapse or a bump, the teachers hold you accountable, the counselor, the recovery coach, your peers will hold you accountable. Or if you're just starting to act out and get in trouble they'll hold you accountable, they're really good at that."

"Yeah I'm held accountable for sure. (Staff member name) always checks in with me making sure I'm going to meetings, I'm talking to my sponsor, he and me have a very close relationship. So I would say I'm held accountable. I feel like a lot of people are held accountable unless they don't give a shit."

Staff responses:

"(long pause) No and yes, I hate to say it that was cause its so wishy washy, but they're held accountable in that they're drug screened. If they're screened and they're positive then they're obviously called out on that, but the accountability is a little vague for me cause its not consistent. Not pointing the finger at anyone specific but I think there needs to be real specific criteria, if this happens this is what's going to happen, but with that being said that's easier said than done. When you need to get students in the door and keep students here to keep the doors open and we're not in the business of kicking kids out and suspending them all the time either. These kids need to have a high school diploma… But if we're called a recovery high school and we want kids in treatment and in recovery then we need to decide that, and work towards that. They keep trying but it's like they're spinning their wheels, it's very frustrating."

"We take (recovery) meeting sheets and then we might have onc every three weeks, oh god we really need you to get in these meeting sheets. I can think of three students that have a sponsor, which is one of the requirements. It's just very haphazard."

"Certain things I feel like kids are held very accountable, lets just say their uniform. Pretty consistently they're held accountable, they have to change their shirt or if they come in with jeans they have to leave…But accountability for more glaring and more important things, I would say it's yes and no it depends on the kid and the situation. What do you do when a child keeps having negative screens? And you have one kid who's had five negative screens in a row, and ends up getting suspended. But you've had other kids that have had that many screens and didn't get suspended. It's

inconsistent. Now if you sit down with the administration they usually have one reason or another but often times it's well we try to look at each kid individually, but I don't know how successful that is. It's my opinion. And I don't know how fair that is. I think that it's not fair and kids notice that. It's silly to think they don't notice. Why is Josh gone and Cindy isn't? Sometimes I feel like we're not privy to that information. It's kind of like a husband and wife team not communicating, it's kind of I don't know I wonder why. Not good."

"If I'm in recovery I've got to be accountable to myself. So then how do you hold me accountable to myself? It's a tricky thing. When you're working with teenagers…with significant trauma in their life and then you're working with teenagers that have substance use disorder. It's really easy for people to say you need to hold them accountable and not really understand the game that's played there. It's a lot like fishing. I do a lot of I'm going to pull you in and then I'll let you out a little bit. It's not as simple as saying here's what you need to do go out and do it or you can't come back to school here tomorrow, you can't be a part of our community… Accountability is just not something you can put a stamp on and say there you go there's accountability… so if they're not going to meetings cause we said they have to go to two meetings a week and you have to get a sponsor, if they're not doing that how are they held accountable? …and being a person in recovery myself I know this is how I made progress. The initial way I was held accountable was it wasn't oh you didn't go to your two meetings so you're fired, it's you didn't go to two meetings so we're going to talk about it and we're not to the point where there's consequences or punishments or having your crap taken away from you. But you do have to be accountable in the sense that somebody is going to continue to ask you questions. I'm going to come get you and we're going into my office and talk for a little bit. For a lot of them that's accountability right there."

"Yeah I think that they are, they're held accountable to the extent that we act on the information that we have. Sometimes we don't always have all the information, but yes."

Node 6: Restorative Justice

Node identified during coding process. Staff referred to this concept using multiple terms (i.e., "restorative justice", "restorative practice", "restorative discipline"). Code book definition: An approach used by the staff at Hope Academy to hold students accountable when they relapse or display other destructive behaviors. Restorative puts emphasis on "repairing harm done to relationships and people" as a result of the negative behavior, rather than "assigning blame or punishment". Restorative is counter to progressive discipline (i.e., three strikes, zero tolerance). Word cloud for this node is found in Figure XI.

Student interview question: N/A

Staff interview question: N/A

Figure XI: Word Cloud - Restorative Justice

Student responses:

"I think there are two parts to a kid doing something that is messed up, the punishment and then the help they need to restore, I think their help should be comprehensive and individual and based only on them, and I think their consequences should be consistent and the same between all students."

"…I feel like I definitely should have been kicked out of here. I've gotten chance after chance, but (staff member name) the recovery coach, he basically saved my life. I can see why some of the other people didn't get so many chances. It's because they weren't always willing, and they didn't always get back up. I kept failing drug screens, but they knew I was willing I was just really struggling. They just kept doing whatever they could and trying new things. I'm lucky I got chance after chance because if I didn't I would be back out using again. I needed multiple chances that's what got my head screwed on straight…I guess there's a certain point that you cross that you get booted from here. I never came to school high, at least not that they know about. I guess it depends on what line you cross. Some people just don't get more chances because they keep messing up and don't put forth any effort. I guess in my case they saw me putting forward effort and trying. That's why they kept giving me chances."

Staff responses:

"But the whole idea of restorative discipline is largely missed upon them (the students). Especially for some of the ones that have been here for two or three years… kids that have come into their community and threatened the community, they are very punitive minded towards those kids. They want them out, they want them hung on the streets, they want them chop off his head and let me stomp on it. They're like that. They are not restorative minded but we (the staff) are."

"I think one of the cool things about this school and our philosophy, that I really like… is we treat every kid as an individual. There's no blanket put over all of them, they're not put in boxes, they're not all assumed to be the same or to need to same approach or same response."

"You know our kids have… a very distorted sense of things a lot of times. And the very kids that are probably pointing the finger and saying not everyone is treated fairly, this needs to happen to these kids, they're ignoring everything that has been looked over that they've done. We have a kid here that's been here for three years and man he is all about, there needs to be kids kicked out of this school and they need to be gone and it's not fair that they're still

here. We have a cell phone policy and he's never once turned in his cell phone. We just kind of moved right along cause he's been here a long time, he's been very successful, so we decided everybody move along with your business. So he's right not everyone is treated fairly, or the same, and I guess that's where you are so it's interesting. But he'll be the first one to point out that people are breaking the rules and getting away with it, and it's like well look so are you."

"I think we're all aware of what the term is, but do we use it consistently, no… I feel like I'm throwing the school under the bus but I think they would like it to be, but they don't practice it enough. I think they do over at the adolescent unit with kids in treatment, but I don't think they've figured out how to use that model here when you're trying to educate a kid in addition."

"I just think that kids get confused, it's kind of like that's not fair, what happened there. Often times we talk about it, and I try to play devils advocate but I don't ever want to speak badly of the administration around the kids but I'm thinking the same thing. Well why was that?"

"Part of it is the recovery practices, making amends and repairing is part of restorative justice, and that's a part of the recovery process, and part of what they do. So I don't know if the kids would name it that, but it's certainly what we do."

"We don't use the word (restorative) justice, we use practice. I don't think the students would say oh yeah we use restorative practices here. We'll use the word restorative if they ask us for a discipline model. We talk about restorative practice. We don't sit down with them and go through the steps."

"We don't necessarily name it restorative justice, we talk a lot about how we interact with each other, we do some things at the beginning of the year around the discipline model, what's going to be expected, if they harm other people. We don't necessarily sit down with them and say this is was restorative practices are. But it's in how we interact with them, how they interact with the classroom, so I don't know if the student's would be able to name it for you."

"I do, I think that as addicts it is very easy for us to focus on other people's defects and how it affects us. So it's very easy to pass judgement when that's coming down upon others; however, I do think that if the restorative practices are truly what we're trying to model here I don't think we're doing it effectively. We're not. And I know for a fact that there have been specific students that have been very detrimental to the overall climate here…"

> "And I think that there's not a real clear focal point of accountability and modeling of what that looks like…we don't come back to that over and over again with legitimate education and understanding of this is what a restorative practice looks like."

> "So do you keep kids here and they have failed screens…legally this is a public charter high school so we have to take kids… but if they're constantly not passing their screens but they are still coming to school doing their work then I think we have to let them stay… So to develop the culture of not using at all, I think you would have to screen three times a week and really put the hammer down if the screens are positive. But then you may have to put 15 kids in your school instead of 45. I think they have to decide what they want their DNA to be. I know it probably comes down to dollars and cents unfortunately."

> "One of things that we could do better is teaching what restorative means upfront. They need to know what that means, they need to know what it looks like and then they will be better able to identify when we are practicing restorative measures with them. Because what they expect is that when someone uses or relapses that we're going to kick them in the ass, that we're going to say ok well now you can't come to school anymore and you have to walk out of here in hand cuffs and bad things are going to happen, and that's not a response. So in their mind, yes, we're not doing anything."

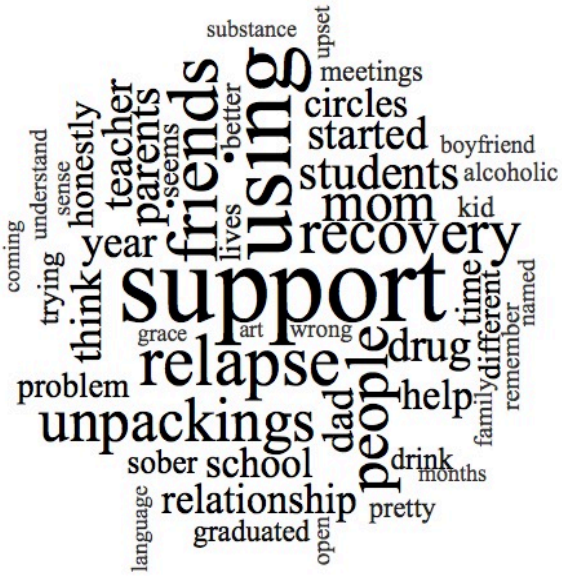
Node 7: Support

Code book definition: Social support received while in enrolled at RHS from peers, family, or the staff. Mentions of student's ability to build positive peer and family relationships while enrolled at RHS. This includes mentions of reduced contact with 'negative' peers, or increased interactions with 'positive' peers since enrolled. Word cloud for this node is found in Figure XII.

Student interview question: Who provides you with social support? Has the amount and/or quality of social support you have changed since enrolling at Hope Academy?

Staff interview question: Do you feel that Hope Academy students are provided with social support?

Figure XII: Word Cloud - Support



Student responses:

"The art teacher, she is great to talk to. Honestly you can talk to any teacher about it. This school is honestly, which I finally accepted, this school is so open about things, and that's surprising to me…"

"Actually having the support circles again. Unpackings I've heard it help so yeah unpackings also. Support circles are more like, I relapsed I need help, maybe your friend would have ideas of what you could do instead if you're thinking about relapsing or actually relapsing. Unpacking are more like they actually talk in detail about what you were doing before, during and after your relapse. I feel like the support circles are more for friends and unpacking are more professional."

"I feel like we could have more peer support. From each other, student to student support. But I think it's pretty good. I'm happy to be here at this school. Some students are really into recovery and some are not totally there yet. It's ok because everyone goes their own pace."

"This kid (student name) he goes here, I love him, he's a precious little angel…He's a good support, he's always there to talk. He has a lot of wisdom beyond his years, he's graduating early. (student name), who's coming in next, he's also a precious baby angel. We go to meetings a lot and he's like super cool. And I will text him when I'm upset and he'll text me when he's upset and just talk things out. We get along really well. I feel comforted talking to him even if he doesn't say anything."

“My support right now in this school, with (staff member name) and (staff member name) and all these people, I can't share everything with but I always know they're there to support.”

“Now all my friends are from Hope Academy, I have a pretty small circle, but the people that I am friends with are from Hope.”

“The friends I made here, all the people I've met over at Fairbanks (recovery unit) when I went. All the counselors and everybody I met in recovery.”

“(staff member name) the recovery coach has been really big now and in the past. I would just get up and start walking through the hallways searching for anything with alcohol in it, like hand sanitizer and stuff like that so I could drink it. He would be following me, like where did (student name) go? He went through a lot with me and it's really cool that I'm here, because he seems to be proud. I want to show him that what he does, does make a change, because a lot of the time is seems like people just don't catch on. His work does do something and it did a lot for me.”

“I've contributed like 10 of those (unpackings). I used to get a lot of those. Every single one left me feeling a bit more whole and a bit more willing to keep living.”

“In a sense. They used to be. It used to be a lot different. There was a clinical specialist named Dr. Z. He used to do unpackings so pretty much every time someone would relapse there would be a lot of support and a lot of processing to go along with that. Now if somebody relapses it's like ok we're going to put that on the record get back to class kid. They tried to do support circles, a group of students and teachers who somebody could choose to talk about their relapse with and get feedback.”

Staff responses:

“Because we've had unpackings this year, not like they were when Dr. Z was doing them. That's a different thing. But we still do the unpackings, we still do the circles.”

“I know for a fact that they (unpackings) have made a huge difference in the lives of several of the students …”

“Dr. Z has not been interacting with students for the last two years… It was mostly mental health, it really wasn't around the recovery issues. Yeah, the unpackings, it was a significant part. (staff member name) is doing those, maybe not to the level of research-oriented that Dr. Z was.”

> "Maybe more recovery components can be developed into your curriculum, I don't know how that would look in math or history or art, but I think the language that we use with the kids, all the language of recovery, could be utilized more within the classroom."
>
> "There's no way, with two or three years of their lives, we can fix everything, but we play a huge part in giving them a safe supportive environment that they can come to every day, where they feel special, where they feel wanted, where they feel they play a role and that they're important. They don't get that in the big box schools that they go to, and they don't get that at home, most of them, truthfully… We had a student this year that told us, there was a fight that broke out among some of the students, and this other student was really upset by the incident. And he came to me and (staff member name) and he was distraught. And he said this is my safe place, everything else in my life is completely messed up, chaotic, I'm never sure what's going to happen, I'm never sure if I'm going to be ok, but here I know I'm going to be ok. I know that I'm cared for, I know I'm safe, I know there's a routine. He said I depend on that, so when this kind of stuff happens then I have nothing."

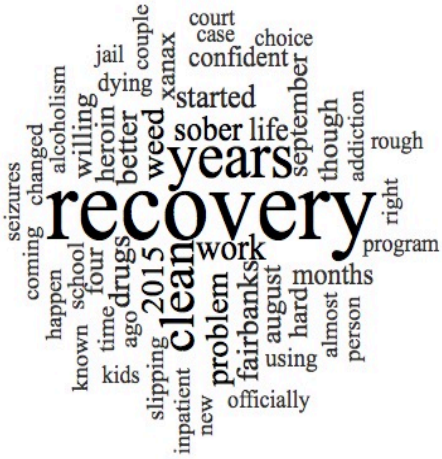
Node 8: Recovery Status

Code book definition: The individual's self-identified recovery status, as well as the length of time they have been in recovery. Word cloud for this node is found in Figure XIII.

Student interview question: How long have you been in recovery?

Staff interview question: Are you in recovery yourself?

Figure XIII: Word Cloud - Recovery Status



Student responses:

"If I'm here I say I'm in recovery, and if I'm not here I'm not in recovery. I'm doing this so I can have my court case go better and so I don't have to go to jail."

"So I don't really consider myself in recovery. I'm just sober until I get over this and then whatever else I do I just kind of do, if that makes sense."

"I am in recovery from Xanax and all those other hard drugs I did, but not weed. Because weed was never a problem for me. Here it's like you're clean off everything or you're not in recovery."

"I've been in recovery since September 2015. I haven't been clean since September 2015 but that's when I started to get clean."

"I've been trying to get right for two and a half years now. But I kept slipping up. I wasn't willing to do everything it took. I was willing to get a sponsor but not work the 12 steps. So it took me almost dying, where I had six seizures in one day, and got sent to inpatient at Fairbanks (recovery unit). And that changed my life around."

"And I really wasn't in recovery it was more that I got expelled from my former school for drug use. So I never really took this thing seriously. But I started probably getting serious about it around, probably not that long ago, maybe a month and a half ago, a few months. Because I saw that I had a problem."

"Probably since August since I came here. That's when I first officially got into it (recovery)."

"I've been working a program since August of last year but I've known about recovery for a couple years now."

"About four or five months."

"I've been sober for a little over two years, but I've been in recovery for about four. I just had a really rough time for the first two years."

"January 25th so coming up on four months."

Staff responses:

"I'm in recovery…I worked with kids my whole life, and then I struggled with alcoholism and addiction so I got into recovery.

"I'm in recovery myself and went though Fairbanks (recovery unit)."

"I happen to be in recovery. I am a person in long term recovery."

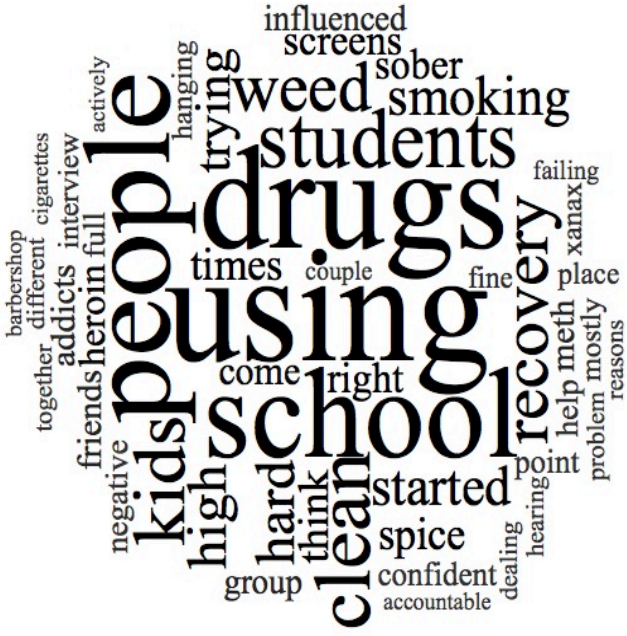
Node 9: Current Drug Use

Node identified during coding process. Code book definition: Mentions of current drug use among the students enrolled at Hope Academy. This includes admission of personal drug use, as well as first-hand accounts of drug use among other students at Hope Academy. Word cloud for this node is found in Figure XIV.

Student interview question: N/A

Staff interview question: N/A

Figure XIV: Word Cloud - Current Drug Use



Student responses:

"I don't know I use drugs a lot so. They would say I've been in addiction since middle school but I only started doing hard drugs about a year ago. That's like meth. Never done heroin. Drinking, weed, shit like that, pills every now and then, acid."

"Like 90% of the kids here are using… Some people are on the fence, they sort of want to get into recovery but there's such a strong negative influence right now in the community that a lot of people are failing. It's unchecked students, unchecked boundaries. I think they need a dean and another recovery coach."

"There's like usually five to ten people who want to be sober and trying to do things to help their sobriety and help their recovery, and there's five to ten people who are here to sell drugs, then there's five to ten people above them that are here to get their probation officer off their backs or their parents off their backs, and then there's the people between that and this that are like I don't know what I want to do."

“This is quote unquote a recovery high school but the staff doesn't want to admit that kids are using drugs, that no-one is really sober, like they just want to turn a blind eye…Honestly no I feel like they helped me grow as a person, but recovery wise no. I've had way more access to any type of drug that I could ever want and or need than at a normal high school. It's just so much easier to find here. It's ridiculous.”

“Before I first came here I didn't know where to get meth, I didn't know where to get spice or Suboxone or anything like that. I smoked cigarettes a couple times, and here it's like an everyday thing. It just introduced me to more stuff. It’s like if you go to a barbershop you're going to get a haircut, if you go to a school full of addicts you're going to get high.”

“I feel like in a way it's not helpful to have a bunch of addicts or drug users… I just feel its not helpful having them all together sometimes because if you don't know someone who deals meth or something then somebody else here will, there’s a higher chance.“

“But when you get a school full of kids that do drugs together, what do you think is mostly going to be at that school? Kids will use drugs here and this is a recovery place, we don't care we'll use drugs anyway. It's kind of crazy.”

“I started doing more drugs when I came here believe it or not. I started doing a lot of drugs whenever I came here. Cause they're like everywhere. Like you have a whole pool of people who have done different things from different areas so it's a lot easier to find stuff.”

“I feel like it's kind of more concentrated cause they did take all the kids that have problems with substance and put them in one school together. I feel like there is more of it, but it's more controlled. Like more negative influences, but there's also more help and support for them. So there can be substances here and there can be people who are struggling, but there's more well if you need help you should go talk to (staff member name) or (staff member name). So I feel like it kind of evens out, but I do think this is a better place than where I was at. But there is more support here for the people that do struggle.”

Staff responses:

“…a lot of kids are coming without any treatment, and without any education in recovery.”

"We have a lot of issues with drug screens not being able to detect certain things. We have a culture of students who end up here, who for varying reasons are not necessarily looking to be clean and that can be extremely challenging for students who are truly trying to be abstinent from everything and get their life back."

"I think that the majority of our population is using right now, currently. So if they were at a point where they were going to make that hard and fast line, say two dirty screens and you're out, then we would have probably five students…I know whatever they say in the interview that is all well and good but some of them are still high when they come into their interviews."

"I sat and talked to a student the other day who told me to my face, as long as he wasn't using the drug in school it was totally fine for him to come to school high."

Chapter 10: Discussion of Section III

Overall, the student and staff interviewees seemed open and forthright when answering questions and discussing their experiences at RHS. In three instances, it was this researcher's opinion that the recovery coach and both administrators were somewhat defensive in their interviews; however, this disposition is expected when individuals have dedicated their entire livelihood to young people in recovery and the RHS movement at large. Nevertheless, these three interviews, along with all the others, produced a great deal of insight into the inner workings of the school and whether the academic performance and recovery success of the students improved over time.

After the transcripts of each interview were analyzed, key themes had emerged from within each of the nine nodes. The summary table below (Table XIII) displays these themes with the corresponding node. Also displayed, are the number of students and staff members who referenced each theme, along with the total number of references these individuals made about the theme. This summary tables serves as the starting point for discussion. Each theme is discussed individually below.

Table XIII: Summary of Qualitative Themes

Node	Theme	# who referenced theme/ # references	
		Students	Staff
Academic Performance	Test scores, grades and/or attendance improved since enrolled at RHS.	10/37	4/6
RHS Performance	Students admitted into school who are "unfit".	5/11	3/6
	Unclear or inconsistent disciplinary policy, specifically related to recovery issues.	10/16	3/10
Original High School	School environments prior to RHS were not conducive to recovery success.	8/14	-/-
Recovery Success	Student's recovery success improved or maintained since enrolled at RHS.	9/13	4/5
	Student's recovery success worsened since enrolled at RHS.	4/6	-/-
Accountability	Students not meeting requirement of two recovery meetings per week and/or obtaining sponsor.	8/12	2/3
	Accountability between students is inconsistent and/or "unfair".	10/19	3/13
Restorative Justice	Concept is guiding philosophy among staff.	-/-	4/8
	Students do not recognize when concept is practiced by the staff.	-/-	4/10
Recovery Status	Do not self-identify as being in recovery.	4/5	-/-

Node	Theme	# who referenced theme/ # references	
		Students	Staff
Support	Recovery coach performs daily duties outside of recovery. Subsequent decrease in recovery support services provided at RHS.	6/10	2/4
	Unpackings were a useful support tool after a relapse event.	4/9	2/5
Current Drug Use	Heavy current drug use/abuse among students.	10/20	3/7

Node 1: Academic Performance

The key theme that emerged from the first node, academic performance, was that student test scores, grades and/or school attendance had improved since enrolled at RHS. A total of 10 of the 13 students interviewed made 37 references to positive academic growth since being enrolled at RHS. Students reported things such as, increased attention span in class, having fewer unexcused absences, and the ability to remember academic material for longer periods of time. Four of the five staff members referenced similar accounts of positive academic growth among the students a total of six times. Multiple student reports indicated drug and/or alcohol use led them to "not care" about school, which resulted in a short-term period of poor academic performance that rebounded once the drug use stopped.

Node 2: RHS Performance

Two key themes emerged from this node. The first theme referenced the school's process of admitting new students, and the second referenced the

school's disciplinary policy surrounding recovery-related 'infractions'. The first theme was referenced by five students and three staff members a total of 17 times. These individuals reported that students who are "unfit" are often admitted into school. These individuals discussed things, such as, students being admitted who are not in recovery, who have no prior SUD treatment, and whose presence at the school results in a poor recovery community.

The school's administrators have little flexibility to modify their admissions policy, which is mostly dictated by the Indiana Department of Education. Because this RHS is classified as a public charter school they are required to accept any state-eligible student, regardless of whether or not the student is in recovery. This has resulted in a number of students being admitted who, for a number of reasons, are not in recovery, and/or who are actively using drugs and/or alcohol. A number of individuals reported that either they themselves or other students were forced to enroll in the school by their parents or the legal system (i.e., probation officer).

The second theme to emerge from this node was that the school had an unclear or inconsistent disciplinary policy, specifically related to recovery issues. A total of 13 students and staff members referenced this theme a total of 26 times. These individuals reported a clear and consistent disciplinary policy in regards to common behavioral issues (i.e., dress code violations, fighting) within the school; however, multiple reports claimed the disciplinary policy became unclear and inconsistent when applied to recovery-related infractions. These infractions specifically dealt with instances where students continually used drugs and/or alcohol while enrolled at the school, failed numerous urinalysis screens, or experienced numerous relapse episodes.

Both students and staff reported the process of dealing with recovery-related infractions varied drastically from student to student. Students described the process as being, "biased", "unfair", and "inconsistent"; while three staff members described it as "not consistent", "confusing", and "vague". On the other hand, from the perspective of school administrators, they are not in the "business of kicking kids out" when they relapse. The problem becomes balancing compassion for the individual and giving second-chances with the overall needs of the school and recovery community.

Node 3: Original High School

Under this node, eight students described their school environments prior to RHS as not being conducive to recovery success. These eight individuals made a total of 14 references to this theme. They reported having more access to drugs and/or alcohol, and being in close proximity with peers who "negatively" influenced their recovery.

Node 4: Recovery Success

Under this node, two main themes emerged. 18 total references to the first theme were made by nine students and five staff members, who reported that student's recovery success improved or was maintained since enrolled at RHS. However, four students made six references to the second theme, which stated the opposite, that their recovery success worsened since enrolled at RHS. An interesting distinction that can be made here is that all four students who referenced the second theme also reported they do not attend recovery meetings, while seven of the nine who referenced the first theme reported they attend at least one recovery meeting per week. This matter of students attending or not attending recovery meetings comes up again in the next node.

Node 5: Accountability

Students not meeting the school requirements of, 1) attending at least two recovery meetings per week, and 2) obtaining a sponsor, was the first of two major themes from this node. Eight students and two staff referenced this theme a total of 15 times. Most expressed frustration with, at worst, was a complete lack of, and at best, a "consistently inconsistent", ability to hold students accountable who failed to meet those two requirements.

This frustration carried over into the second theme in this node, where 13 students and staff members described the process of holding students accountable as "unfair" and "inconsistent" from student to student. These 13 individuals made 32 references to this theme. A lot of the terminology and general sentiment in this theme resembled the theme from node two, where confusion was expressed in regards to the school's disciplinary policy. Administrators and staff described 'Restorative Justice' as the philosophy that underlies the school's disciplinary policy, and ultimately, how, and to what degree each student is held accountable. The concept of Restorative Justice was mentioned enough that it became a separate node with resulting themes.

Node 6: Restorative Justice

Four staff members referenced eight times that Restorative Justice was the guiding philosophy by which the staff holds students accountable. However, there was little consistency between their specific terminology. This single concept was referred to as, "restorative justice", "restorative practice", "restorative discipline", and one individual shortened it down to just "restorative". There was general agreement between the staff regarding how Restorative Justice should be practiced in theory, but relatively little agreement on whether the theory was being operationalized effectively within the school.

A big part of Restorative Justice is "restoring" rather than "punishing"; however, some punitive-minded individuals object to the second-chances that Restorative Justice advocates. This could be a problem because four staff members reported that students, the majority of whom are strongly punitive-minded, are unable to recognize when the staff is practicing Restorative Justice. These four staff also reported that students do not receive any sort of education or training on Restorative Justice, and most doubted that students would even recognize the term, much less the concept being practiced. This inability to recognize Restorative Justice in practice may help explain why so many students viewed the school's accountability process as "unfair" or "inconsistent".

Node 7: Recovery Status

When students were asked whether they self-identify as being in recovery, this researcher just assumed all responses would be affirmative; however, this was not so. Four of the 13 students interviewed reported they were not in recovery. One student went as far as to say, "If I'm here I say I'm in recovery, and if I'm not here I'm not in recovery".

Node 8: Support

Two themes emerged when interviewees discussed the various recovery supports that students received. Six students and two staff members specifically discussed the unique and influential role of the recovery coach within the school. There were 14 references that described the recovery coach as performing daily duties outside of recovery. Multiple students reported this as the cause behind the subsequent decrease in support services provided through the school. However, any decrease in support services was more likely the result of a recent loss of two recovery support staff members, a clinical specialist who retired, and a second recovery coach who accepted a position with an affiliated recovery unit. With the one remaining recovery coach, a period of readjustment was expected to cope with the increased work load.

The second theme from this node was the discussion surrounding 'unpackings', which were described as a useful support tool following a relapse event. Four students and two staff members made a total of 14 references about the usefulness of unpackings. One student said of their experience with the unpacking, "every single one left me feeling a bit more whole and a bit more willing to keep living". It was reported that unpackings were rarely, if ever, conducted since the retirement of the clinical specialist.

In a school with 30+ students and only one recovery coach, several students reported rare or infrequent contact with the coach. In addition to all other time constraints, the recovery coach added, "there's probably four or five kids that take up 30% of my time…". Such constraints, if left unmanaged, could leave the majority of students with minimal recovery support from the school.

Node 9: Current Drug Use

This node produced some of the most troubling findings of this entire analysis. The final node had one major theme, which emerged after 10 students and three staff members provided 27 references describing the current culture of heavy drug use/abuse among the students at the school. One staff member described the situation mildly, "a lot of kids are coming…without any education in recovery", while a student stated it more bluntly, "kids will use drugs here and this is a recovery place, we don't care we'll use drugs anyway. It's kind of crazy".

There was consistent agreement among these 13 individuals that drug use was a sizable and ongoing issue at the school. However, there was relatively little agreement on what the school should do in regards to those drug-using students. The dilemma between accountability and Restorative Justice returned again.

Conclusion of Section III

Section III of this dissertation began by asking two research questions concerning the academic performance and recovery success of RHS students. At this time it can be confidently concluded that overall academic performance of these students either improved or stayed the same after they enrolled at this RHS. What can not be concluded so easily, however, is whether the recovery success of these students improved as well. Further analysis would be needed to make a decisive conclusion regarding the recovery success of these students.

Section IV: Dissertation Conclusion

Chapter 11: Synopsis of Sections II & III

The two original research questions that drove this dissertation attempted to look at the academic performance and recovery success of RHS students. At this time it can be concluded that the academic performance of most students either improved or stayed the same after they enrolled at this RHS. This finding was consistent across the qualitative results from section III, as well as the quantitative results in section II, where the academic growth of RHS students was not found to be statistically different from non SUD-impacted students at non-RHSs

What cannot be concluded so easily, however, was whether the recovery success of these RHS students improved. Further analysis would be needed to make a decisive conclusion regarding the recovery success of these students, but simply based on the fact that two-thirds of the RHS students interviewed in section III reported they do not meet the school requirement of attending two recovery meetings per week, is enough in and of itself to question the recovery success of these students.

At the time of this publication, this dissertation along with the work from Finch and colleagues, represent the only known attempts to quantitatively measure the academic and recovery outcomes of RHS students [91]. There were two primary differences between the work conducted in this dissertation and the work of Finch [91]. First, this dissertation recruited the study population from a single RHS, while Finch recruited from RHSs across three different U.S. states; and second, Finch's comparison group were SUD-impacted students from non-RHSs, while this analysis used non SUD-impacted students from non-RHSs.

Admittedly, Finch's use of SUD-impacted students for the comparison group offered a more fair estimation than using non SUD-impacted students; however, the logistics of recruiting such a comparison group proved to be quite challenging. It took Finch nearly five years to recruit 60 students for his comparison group [91], which was the primary reason why this dissertation opted for the VCG comparison group.

Future research on RHS students should expand on this analysis to include students from multiple RHSs across the country, and compare those students against their SUD-impacted peers from non-RHSs, similar to the work of Finch but with a larger population. An additional option would be to compare students from various RHSs against one another to understand the differences between various RHS programs. Lastly, from an organizational perspective, there seems to be a need for an analysis of cost-effectiveness, which would assess the potential financial benefit of combining both education and recovery services under on roof, as opposed to delivering these services separately.

Chapter 12: Health Policy & Management Recommendations

This chapter outlines both health policy and management recommendations based on the findings and conclusions of this dissertation. The health policy recommendations are intended to be generalizable to most any RHS in the country, while the management recommendations are more focused and specific to the study site. The three health policy recommendations are discussed first.

Health Policy Recommendation 1 - Recovery Support

There is a risk of placing multiple SUD-impacted students in close proximity without effective or consistent recovery supports in place. Consistency is critical. If recovery supports are cut for financial, logistical, or any other reason, it could result in an environment that does more harm than good to these vulnerable students.

Health Policy Recommendation 2 - Financing

The majority of RHSs receive money for education services provided, just like any other public school, but receive no money for the recovery activities and support they provide. This could be a contributing factor explaining why the academic performance of RHS students was mostly positive, while their recovery success has been somewhat more questionable at times.

Health Policy Recommendation 3 - Earlier Intervention

Evidence suggests that many RHS students would have benefit from finding such a place much earlier in life. The majority of students reported their substance issues began around age 12, but the average age at enrollment was nearly 16.5 years. This may indicate the need for something like a recovery middle school.

Management Recommendation 1 - Chief Recovery Officer

At the RHS study site in this dissertation, the administrative team consisted of a school Principal and a Chief Operations Officer (COO). Unlike a traditional high school, a RHS is unique in the fact that it serves two missions, education and recovery; and therefore, it would make sense for each RHS administrator to focus or specialize in one of the two mission areas. In this case, the Principal's primary focus would logically be education, while the COO's would be recovery. To further distinguish between the roles of Principal and COO within the RHS, the COO could consider a title change. Chief Recovery Officer (CRO) would be one example.

The goal of creating the CRO position would be for the two administrators to have very little overlap of their daily duties, and thus allowing each administrator to focus on one aspect of the school's dual mission. With that said, the intention would not be for the administrators to operate in perfect isolation from one another. One area of daily collaboration would be when decisions regarding disciplinary action against a student must to be made. The principal would advocate on behalf of the school, and the CRO on behalf of the recovery community.

Management Recommendation 2 - Orientation Process

Implementing a one to two week structured orientation process could be beneficial for the individual students and the RHS as a whole. Not only would orientation serve as an opportunity to identify at-risk students before introducing them to the general population, it would serve as a chance for the student to acclimate to their new environment and learn about the school's operational values, such as, restorative justice. For the greatest chance of success, the orientation process should be highly structured and revised on a regular basis.

Management Recommendation 3 - Alumni Association

Because RHSs foster a strong sense of community, more so than traditional high schools, they could be prime for developing a prosperous alumni association. Engaging alumni in current recruitment activities could be a potent strategy that is also cost-effective for the school. Current students may also benefit from structured interactions with successful alumni.

Chapter 13: Final Conclusion of Dissertation

Statistically significant p-values in section II would have been ideal, but what could be concluded was that academic performance of RHS students was not statistically different, either positively or negatively, from non SUD-impacted students at non-RHSs; which, in and of itself, is a finding worthy of more discussion. Additionally, the interviews in section III uncovered the idea that while overall academic performance was generally positive, there may be a risk of placing SUD-impacted students in the same school if adequate and consistent recovery supports are not in place. Overall this dissertation has successfully completed the intended purpose of producing knowledge on a population of which there was very little published in the body of academic literature before.

Appendices

Appendix A: IRB Exemption for Section II

INDIANA UNIVERSITY INSTITUTIONAL REVIEW BOARD (IRB)

APPLICATION FOR NON-HUMAN SUBJECTS RESEARCH
(RESEARCH NOT SUBJECT TO FDA OR COMMON RULE DEFINITIONS OF HUMAN SUBJECTS RESEARCH)

Principal Investigator: Cynthia Stone & Adam Knotts

Please type only in the gray boxes. To mark a box as checked, double-click the box, select "checked", and click "OK".

SECTION I: PROJECT TYPE

STOP! Before completing this form, refer to the IU Human Subjects Office website for additional information on determining if the activity is considered Human Subjects Research at http://researchadmin.iu.edu/humansubjects/hs_submissions.html. Investigators conducting research falling into the categories below do not need to submit an application to the IRB unless specifically requested by a sponsor or collaborator.

☒ **Project does not involve human subjects,** in that the researcher(s) will not obtain personal data (1) through intervention or interaction with individuals, or (2) identifiable private information from or about, including a person's opinion on a given topic.

☐ **Project meets the definition of human subjects research; however, Indiana University is not considered engaged in this research** in accordance with the Office for Human Research Protections (OHRP) Guidance on Engagement of Institutions in Human Subjects Research available at http://www.hhs.gov/ohrp/humansubjects/guidance/engage08.html.

☐ **Project is NOT a systematic investigation** designed to expand the knowledge base of a scientific discipline or other scholarly field of study through the attempt to answer research question(s) and draw conclusions. Please proceed to Section II.

☒ **IU Researcher(s)** receive de-identified information (not Health Information) from another source or institution which requires confirmation that no IU IRB Review is needed. Please proceed to Section II.

☐ **Research Involving Data on Decedent PHI**. Please indicate that the following criteria are satisfied:
- ☐ The use is solely for research on the identifiable health information of decedents.
- ☐ The PHI sought is necessary for the purposes of the research; and
- ☐ Upon request, the covered entity disclosing the data may require the investigator to provide documentation of the death of the individual(s) about whom information is being sought.

☐ **Limited Data Set**. The research uses or discloses PHI as a limited data set for research purposes. This project type may only be selected if the following is true: Your data set excludes 16 specified identifiers that are listed in the regulations, including: name, street address, telephone and fax numbers, e-mail address, social security number, certificate/license number, vehicle identifiers and serial numbers, URLs and IP addresses, and full face photos and other comparable images. The limited data set could include the following identifiable information: admission, discharge, and service dates, date of death, age (including age 90 and older), and city, state and zip code.

NOTE: A Data Use Agreement must always be established between the entities providing the data and the investigator. See the Confidentiality and Privacy SOP for additional information.

☐ **De-Identified Health Information**. The research involves the use or disclosure of de-identified health information.

This project type may only be selected if the following is true: The health information excludes all of the following: (1) Name; (2) All geographic subdivisions smaller than a state, including street address, city, county, precinct, zip codes if the geographic unit of combining all the same three initial digits contains more than 20,000 people; (3) All elements of dates (except year) for dates directly related to an individual, including birth date, admission date, discharge date, date of death; and all ages over 89 and all elements of dates (including year) indicative of such age, except that such ages and elements may be aggregated in a single category of age 90 or older; (4) Telephone numbers; (5) Fax numbers; (6) Electronic mail addresses; (7) Social security numbers; (8) Medical record numbers; (9) Health plan beneficiary numbers; (10) Account numbers; (11) Certificate/license numbers; (12) Vehicle identifiers and serial numbers, including license plate numbers; (13) Device identifiers and serial numbers; (14) Web universal resource locators (URLs); (15) Internet protocol (IP) address numbers; (16) Biometric identifiers, including finger and voice prints; (17) Full face photographic images and any comparable images; and (18) Any other unique identifying number, character, or code.

☐ **Coded Private Information or Biological Specimens**. The research involves only coded private information or specimens. To qualify for this type of review, the private information or specimens cannot be linked to specific individuals by the investigator(s) either directly or indirectly through coding systems. To qualify, both of the following conditions must be met:

☐ The private information or specimens were **not** collected specifically for this proposed research project through an interaction or intervention with living individuals. **NOTE:** If this condition is not met, then your research involves human subjects and requires a human subjects research submission.

AND

☐ The investigator(s) cannot readily ascertain the identity of the individuals to whom the private information or specimens pertain because: (mark which option(s) applies)

- ☐ The key to decipher the code will be destroyed before the research begins.
- ☐ The investigator(s) and the holder of the key will enter into an agreement prohibiting the release of the key to the investigator(s) under any circumstances, until the individuals are deceased.
- ☐ Other. Please explain:_____

For additional information on research with coded private information or biological specimens, please refer to the OHRP Guidance on Research Involving Coded Private Information or Biological Specimens (October 16, 2008) at: http://www.hhs.gov/ohrp/policy/engage08.html.

SECTION II: PROJECT DESCRIPTION

1. Provide a brief description, in lay terms, of the purpose of the proposed project and the procedures to be used.

   This study will analyze deidentified secondary data on students who attend a Recovery High School to see if their academic and recovery performance improve over time.

2. Provide a list of all data points that will be collected below or attach a data collection sheet.

   - Age at enrollment - Race - Sex - Start & exit dates - Final outcome (graduated, withdrew, expelled, etc.) - Absences excused & unexcused - # suspensions from school - Age of addiction onset - Drug of choice - Drug used most often - # previous addiction

Statement of Principal Investigator. By submitting this form, the Principal Investigator acknowledges that he/she has personally reviewed this report and agrees with the above assessment.

Appendix B: NWEA-MAP Evidence of Validity & Reliability

Reliability Estimates of Achievement Level Tests and Measure of Academic Progress

last updated 10/11/02

Type Reliability	Data Set	Year	Test Type	Content Area	Term		Grade Level									
							2	3	4	5	6	7	8	9	10
Marginal	NWEA Norms Study - (Source for means and standard deviations to calculate marginal reliabilities)	1999	MAP	Reading (Surv w/ Goals)	Fall	r	.95	.95	.95	.94	.94	.94	.94	.94	.94
						N	4,662	39,590	39,960	40,671	35,508	36,318	34,121	7,620	1,639
					Spring	r	.95	.95	.94	.94	.94	.94	.94	.93	.94
						N	10,308	48,566	52,602	54,254	52,696	53,679	43,600	16,619	3,829
				Mathematics	Fall	r	.92	.93	.94	.94	.94	.94	.95	.95	.95
						N	4,511	37,022	37,237	37,933	33,131	33,664	31,742	7,910	3,313
					Spring	r	.93	.94	.94	.94	.95	.94	.96	.96	.95
						N	9,863	47,635	52,580	53,753	52,581	53,631	43,093	16,725	5,583
				Lang Usage	Fall	r	.94	.94	.94	.94	.94	.94	.94	.93	--
						N	4,292	20,769	21,593	21,980	20,035	19,869	18,630	3,553	
					Spring	r	.94	.94	.94	.94	.94	.94	.93	.92	--
						N	4,758	19,676	23,167	25,304	23,389	24,290	21,038	5,914	
Marginal	NWEA Norms Study	1996	ALT	Reading	Spring	r	--	.94	.94	.93	.93	.93	.94	.90	--
						N		24,623	25,447	27,512	29,664	26,500	24,676	5,045	
				Mathematics	Spring	r	--	.93	.94	.94	.94	.95	.95	.94	--
						N		27,190	28,628	30,109	32,147	28,244	27,380	5,261	
				Lang Usage	Spring	r	--	.93	.93	.91	.91	.91	.92	.89	--
						N		8,954	9,591	9,810	7,587	7,645	8,344	1,641	
Test-Retest	NWEA Norms Study	1999	ALT	Reading	Fall to Spring	r	.76	.85	.88	.89	.89	.89	.89	.84	--
						N	4,253	27,460	30,091	34,525	30,079	28,386	26,190	9,231	
				Mathematics	Fall to Spring	r	.70	.79	.86	.89	.91	.93	.93	.87	.82
						N	4,177	26,522	30,100	34,073	29,730	28,077	24,432	8,788	1,598
				Lang Usage	Fall to Spring	r	.77	.85	.89	.89	.90	.90	.90	.87	--
						N	3,795	14,173	17,285	19,037	16,825	16,822	15,991	3,514	

Reliability Estimates of Achievement Level Tests and Measure of Academic Progress

last updated 10/11/02

Type Reliability	Data Set	Year	Test Type	Content Area	Term		Grade Level 2	3	4	5	6	7	8	9	10
Test-Retest	NWEA Norms Study	1999	ALT	Reading	Spring to Fall	*r*	.87	.88	.89	.89	.89	.87	.85	.84	--
						N	4,632	15,472	16,106	15,517	15,003	14,299	3,752	1,315	
				Mathematics	Spring to Fall	*r*	.79	.84	.87	.91	.91	.92	.89	.89	--
						N	4,585	15,456	16,682	15,302	14,739	13,540	3,864	1,612	
				Lang Usage	Spring to Fall	*r*	.89	.89	.90	.90	.90	.89	.88	--	--
						N	3,749	10,596	11,223	10,623	10,853	10,667	1,445		
Test-Retest	NWEA Norms Study	1999	ALT	Reading	Sprg - Sprg	*r*	.81	.85	.89	.87	.88	.87	.84	.84	--
						N	6,326	22,908	22,294	24,085	26,813	23,756	6,709	2,576	
				Mathematics	Sprg - Sprg	*r*	.72	.82	.87	.89	.91	.91	.83	.85	--
						N	6,654	23,318	23,183	24,117	26,964	23,828	6,565	2,732	
				Lang Usage	Sprg - Sprg	*r*	.84	.86	.88	.89	.89	.89	.87	--	--
						N	3,749	10,488	11,035	10,386	11,151	10,101	1,588		
Test-Retest	NWEA Norms Study	2002	ALT & MAP	Reading	Fall to Spring	*r*	.80	.87	.90	.91	.91	.91	.91	.90	.92
						N	5,470	48,033	53,797	55,451	52,257	52,804	46,925	14,798	3,121
				Mathematics	Fall to Spring	*r*	.77	.84	.88	.91	.93	.94	.93	.90	.89
						N	5,963	49,806	54,971	56,500	54,325	53,730	46,425	8,971	1,410
				Lang Usage	Fall to Spring	*r*	--	.88	.90	.91	.92	.92	.92	.91	.90
						N		35,994	38,970	38,747	36,826	38,350	33,513	11,393	2,590
Test-Retest	NWEA Norms Study	2002	ALT & MAP	Reading	Sprg - Sprg	*r*	.87	.89	.90	.91	.91	.90	.89	.86	.84
						N	18,512	50,241	50,782	52,507	54,207	44,580	10,684	2,621	1,790
				Mathematics	Sprg - Sprg	*r*	.83	.87	.90	.91	.93	.93	.85	.79	--
						N	19,467	50,536	51,322	53,357	54,170	43,956	12,905	4,939	
				Lang Usage	Sprg - Sprg	*r*	.89	.89	.90	.91	.91.	.92	.90	.89	.88
						N	11,197	29,555	31,587	31,317	31,321	28,875	8,500	2,438	1,508

Validity Evidence for Achievement Level Tests and Measures of Academic Progress

last updated 03/24/04

Type Validity	Data Set	Year	Term	Content Area		Grade Level 2	3	4	5	6	7	8	9	10
Concurrent	*Arizona Instrument to Measure Standards* (AIMS) scale scores and ALT and MAP scores from same students	2002	spring	Reading	*r*		.80		.69			.73		
					N		2,493		2,667			1,943		
				Mathematics	*r*		.79		.80			.79		
					N		2,549		2,711			1,965		
Concurrent	*Colorado Student Assessment Program* (CSAP) scale scores and ALT scores from same students	2002	spring	Reading	*r*		.79	.86	.87	.87	.85	.86	.87	.79
					N		7,315	5,790	7,798	7,388	7,119	7,150	2,924	1,147
			spring	Mathematics	*r*				.88	.89	.90	.88	.84	.72
					N				9,512	8,483	7,778	8,035	1,886	759
			spring	Language (CSAP Writing)	*r*		.83	.83	.85	.85	.82	.80	.81	
					N		1,001	1,021	1,116	1,108	1,022	1,039	1,029	
Concurrent	*Illinois Standards Achievement Tests* (ISAT) scale scores and MAP scores from same students	2003	spring	Reading	*r*		.80		.80			.79		
					N		1,759		2,514			962		
				Mathematics	*r*		.84		.87			.87		
					N		1,646		2,358			957		
Concurrent	*Indiana Statewide Testing for Educational Progress-Plus* (ISTEP+) and ALT and MAP scores from same students	2003	fall	Reading (NWEA) /Lang Arts (ISTEP)	*r*		0.77			0.81		0.82		
					N		2,508			2,895		2,698		
			fall	Lang Usage (NWEA) /Lang Arts (ISTEP)	*r*		.79			.80		.80		
					N		2,464			2,878		2,712		
			fall	Mathematics	*r*		.72			.87		.88		
					N		2,479			2,911		2,730		

Validity Evidence for Achievement Level Tests and Measures of Academic Progress

last updated 03/24/04

Type Validity	Data Set	Year	Term	Content Area		Grade Level								
						2	3	4	5	6	7	8	9	10
Concurrent	*Iowa Tests of Basic Skills (Form K)* and Meridian Checkpoint Level Tests	1999	fall	Reading	*r*		.77		.84		.80			
					N		1,456		1,473		1,373			
			fall	Language	*r*		.77		.79		.79			
					N		1,441		1,466		1,397			
			fall	Mathematics	*r*		.74		.83		.84			
					N		1,425		1,460		1,365			
Concurrent	*Minnesota Comprehensive Assessment* and *Basic Skills Test* scale scores and ALT and MAP scores from same students	2003	spring	Reading (MCA)	*r*		.82		.83					
					N		5,129		5,456					
			spring	Reading (Basic Skills)	*r*							.77		
					N							2,513		
			spring	Mathematics (MCA)	*r*		.77		.83					
					N		5,142		5,456					
			spring	Mathematics (Basic Skills)	*r*							.85		
					N							2,492		
Concurrent	*Nevada Criterion Referenced Assessment* scale scores and MAP scores from same students	2003	spring	Reading	*r*		.82		.83					
					N		1,084		1,184					
				Mathematics	*r*		.76		.86					
					N		1,087		1,155					
Concurrent	*Palmetto Achievement Challenge Tests* (PACT) scale scores and ALT scores from same students	2002	spring	Reading	*r*		.77	.76	.70	.77	.78	.81		
					N		1,955	1,889	1,893	1,832	2,040	1,968		
			spring	Mathematics	*r*		.77	.85	.84	.87	.85	.85		
					N		1,955	1,889	1,893	1,837	2,040	1,968		

Validity Evidence for Achievement Level Tests and Measures of Academic Progress

last updated 03/24/04

Type Validity	Data Set	Year	Term	Content Area		Grade Level								
						2	3	4	5	6	7	8	9	10
Concurrent	*Stanford Achievement Test, 9th Edition* (SAT9) scale scores and ALT scores from same students	2001	spring	Reading	*r*	.86	.87	.87	.86	.86	.87	.87	.82	
					N	5,550	7,840	7,771	7,724	3,832	3,885	3,557	4,759	
			spring	Language	*r*	.78	.84	.82	.82	.82	.83	.83	.82	
					N	5,633	7,806	7,916	7,793	3,799	3,828	3,509	4,438	
			spring	Mathematics	*r*	.80	.85	.85	.87	.88	.87	.87		
					N	5,666	7,878	7,929	7,794	3,834	3,841	3,508		
Concurrent	*Texas Assessment of Knowledge and Skills* (TAKS) scale scores and MAP scores from same students	2003	spring	Reading	*r*		.66		.70	.72	.69			
					N		1,757		3,267	3,427	3,335			
				Language	*r*						.73			
					N						3,275			
				Mathematics	*r*				.76		.82			
					N				3,241		3,263			
Concurrent	*Washington Assessment of Student Learning* and ALT scores from same students	1998	spring	Reading	*r*			.81			.80			
					N			2,286			2,271			
			spring	Mathematics	*r*			.80			.85			
					N			2,203			2,266			
Concurrent	*Washington Assessment of Student Learning* (grd 10, spr 2000) and ALT scores (grd 9, spr 1999) from same students	1999	spring	Reading	*r*								.75	
					N								1,003	
				Mathematics	*r*								.81	
					N								849	

Validity Evidence for Achievement Level Tests and Measures of Academic Progress

last updated 03/24/04

Type Validity	Data Set	Year	Term	Content Area		Grade Level 2	3	4	5	6	7	8	9	10
Concurrent	*Wyoming Comprehensive Assessment System* and ALT scores from same students	2000	spring	Reading	*r*			.76				.79		
					N			1,452				1,247		
			spring	Lang Usage	*r*			.60				.68		
					N			1,063				1,002		
			spring	Mathematics	*r*			.79				.81		
					N			1,458				1,552		

Appendix C: GAIN-SS Instrument

Chestnut Health Systems

GAIN GLOBAL APPRAISAL OF INDIVIDUAL NEEDS Coordinating Center

GAIN Short Screener (GAIN-SS)
Version [GVER]: GAIN-SS ver. 3.0

What is your name? a._____ b. ____ c. _____
(First name) (M.I.) (Last name)

What is today's date? (MM/DD/YYYY) |__|__| / |__|__| / 20 |__|__|

The following questions are about common psychological, behavioral, and personal problems. These problems are considered **significant** when you have them for two or more weeks, when they keep coming back, when they keep you from meeting your responsibilities, or when they make you feel like you can't go on. After each of the following questions, please tell us the last time, if ever, you had the problem by answering whether it was in the past month, 2 to 3 months ago, 4 to 12 months ago, 1 or more years ago, or never.	Past month	2 to 3 months ago	4 to 12 months ago	1+ years ago	Never
	4	3	2	1	0

IDScr 1. **When was the last time** that you had **significant** problems with…

a. feeling very trapped, lonely, sad, blue, depressed, or hopeless about the future? 4 3 2 1 0
b. sleep trouble, such as bad dreams, sleeping restlessly, or falling asleep during the day? 4 3 2 1 0
c. feeling very anxious, nervous, tense, scared, panicked, or like something bad was going to happen? 4 3 2 1 0
d. becoming very distressed and upset when something reminded you of the past? 4 3 2 1 0
e. thinking about ending your life or committing suicide? 4 3 2 1 0
f. seeing or hearing things that no one else could see or hear or feeling that someone else could read or control your thoughts? 4 3 2 1 0

EDScr 2. **When was the last time** that you did the following things **two or more times**?

a. Lied or conned to get things you wanted or to avoid having to do something 4 3 2 1 0
b. Had a hard time paying attention at school, work, or home. 4 3 2 1 0
c. Had a hard time listening to instructions at school, work, or home. 4 3 2 1 0
d. Had a hard time waiting for your turn. 4 3 2 1 0
e. Were a bully or threatened other people 4 3 2 1 0
f. Started physical fights with other people 4 3 2 1 0
g. Tried to win back your gambling losses by going back another day. 4 3 2 1 0

SDScr 3. **When was the last time** that…

a. you used alcohol or other drugs weekly or more often? 4 3 2 1 0
b. you spent a lot of time either getting alcohol or other drugs, using alcohol or other drugs, or recovering from the effects of alcohol or other drugs (e.g., feeling sick)? 4 3 2 1 0
c. you kept using alcohol or other drugs even though it was causing social problems, leading to fights, or getting you into trouble with other people? 4 3 2 1 0
d. your use of alcohol or other drugs caused you to give up or reduce your involvement in activities at work, school, home, or social events? 4 3 2 1 0
e. you had withdrawal problems from alcohol or other drugs like shaky hands, throwing up, having trouble sitting still or sleeping, or you used any alcohol or other drugs to stop being sick or avoid withdrawal problems? 4 3 2 1 0

gaincc.org gaininfo@chestnut.org

(Continued) After each of the following questions, please tell us the last time, if ever, you had the problem by answering whether it was in the past month, 2 to 3 months ago, 4 to 12 months ago, 1 or more years ago, or never.	Past month	2 to 3 months ago	4 to 12 months ago	1+ years ago	Never
	4	3	2	1	0

CVScr 4. **When was the last time** that you…

a.	had a disagreement in which you pushed, grabbed, or shoved someone?	4	3	2	1	0
b.	took something from a store without paying for it?	4	3	2	1	0
c.	sold, distributed, or helped to make illegal drugs?	4	3	2	1	0
d.	drove a vehicle while under the influence of alcohol or illegal drugs?	4	3	2	1	0
e.	purposely damaged or destroyed property that did not belong to you?	4	3	2	1	0

5. Do you have other **significant** psychological, behavioral, or personal problems that you want treatment for or help with? (**Please describe**) ..... Yes 1 No 0

v1. _____

_____

6. What is your gender? (If other, please describe below) 1 - Male 2 - Female 99 - Other

v1. _____

7. How old are you today? |__|__| Age

7a. How many minutes did it take you to complete this survey? |__|__|__| Minutes

Staff Use Only

8. Site ID: _____ Site name v. _____
9. Staff ID: _____ Staff name v. _____
10. Client ID: _____ Comment v. _____
11. Mode: 1 - Administered by staff 2 - Administered by other 3 - Self-administered
13. Referral: MH ____ SA ____ ANG ____ Other ____ 14. Referral codes: _____
15. Referral comments: v1. _____

Scoring

Screener	Items	Past month (4)	Past 90 days (4, 3)	Past year (4, 3, 2)	Ever (4, 3, 2, 1)
IDScr	1a – 1f				
EDScr	2a – 2g				
SDScr	3a – 3e				
CVScr	4a – 4e				
TDScr	1a – 4e				

Appendix D: Code Book Used in Section III

Node	Definition	Student Interview Questions	Student Probing Questions	Staff Interview Questions	Staff Probing Questions	Example Quote
Recovery Success (Parent Node #1)	Mentions of personal recovery success, or lack thereof, while enrolled at Hope Academy. Recovery is when an individual voluntarily attempts to maintain a lifestyle abstinent from drugs and alcohol, & actively utilizes resources to prevent & reduce the impact of a relapse episode.	Do you feel that attending Hope Academy has helped you in your recovery process?	How so? In what ways?	-	-	"Yes I 100% think it has helped me in my recovery. I have people I can talk to and it's helped my relationship with my family and our communication… and I can actually remember the stuff I learned in school, which is nice. Overall I feel less stressed about everything."
Accountability	The degree to which a student is held responsible when/if they experience a relapse in their recovery while enrolled at Hope Academy. Also, the degree to which a student is held responsible for general disciplinary issues within the school. This includes the people who hold the student accountable (i.e., peers, staff members), as well as the methods by which the student is held accountable (i.e., drug testing, suspended from school).	Do you feel that you are held accountable in your recovery at Hope Academy?	Do you feel that your peers are held accountable in their recovery at Hope Academy?	Do you feel that students are held accountable in their recovery at Hope Academy?	Has the level of accountability changed since you began working at Hope Academy, or has it been consistently the same throughout?	"Yes definitely 100% yes. The teachers, the staff, everyone even your peers hold you accountable. If someone slips up or a small relapse or a bump, the teachers hold you accountable, the counselor, the recovery coach, your peers will hold you accountable. Or if you're just starting to act out and get in trouble they'll hold you accountable, they're really good at that."

Node	Definition	Student Interview Questions	Student Probing Questions	Staff Interview Questions	Staff Probing Questions	Example Quote
Restorative Justice	Node identified during staff interviews. Child node of "Accountability". An approach used by the staff at Hope Academy to hold students accountable when they relapse or display other destructive behaviors. Restorative justice puts emphasis on "repairing harm done to relationships and people" as a result of the negative behavior, rather than "assigning blame or punishment". Restorative is counter to progressive discipline (i.e., 3 strikes or zero tolerance). Staff referred to this concept using multiple terms (i.e., "restorative justice", "restorative practice", "restorative discipline").	-	-	-	Do you feel that 'Restorative Justice' is a guiding philosophy at Hope Academy? Is Restorative Justice a term that students and staff would recognize and be able to define?	"We don't necessarily name it restorative justice, we talk a lot about how we interact with each other, we do some things at the beginning of the year around the discipline model, what's going to be expected, if they harm other people. We don't necessarily sit down with them and say this is was restorative practices are. But it's in how we interact with them, how they interact with the classroom, so I don't know if the student's would be able to name it for you."

Node	Definition	Student Interview Questions	Student Probing Questions	Staff Interview Questions	Staff Probing Questions	Example Quote
Support	Social support received while in recovery at Hope Academy from peers, family, or the staff at Hope. Mentions of student's ability to build positive peer and family relationships while enrolled at Hope Academy. This includes mentions of reduced contact with 'negative' peers, or increased interactions with 'positive' peers since enrolled at Hope Academy.	Who provides you with social support? Has the amount and/or quality of social support you have changed since enrolling at Hope Academy?	Do you recall how you felt about your ability to succeed in your recovery at Hope Academy when you first decided to enroll? What were your family relationships like before enrolling at Hope Academy? What are your family relationships like now?	Do you feel that Hope Academy students are provided with social support?	What are the different ways that students receive support in their recovery at Hope Academy?	"My support right now in this school, with Brad and Rachelle and all these people, I can't share everything with but I always know they're there to support."
Recovery Status	The individual's self-identified recovery status, as well as the length of time they have been in recovery.	How long have you been in recovery?	Do you classify yourself as being in recovery? How long were you in addiction before you decided to enroll at Hope Academy?	Are you in recovery yourself?	Did you specifically seek out this student population to work with, or is your current position more of something you "fell into"?	"I've been in recovery since September 2015. I haven't been clean since September 2015 but that's when I started to get clean."

Node	Definition	Student Interview Questions	Student Probing Questions	Staff Interview Questions	Staff Probing Questions	Example Quote
Current Drug Use	Node identified during coding process. Mentions of current drug use among the students enrolled at Hope Academy. This includes admission of personal drug use, as well as first-hand accounts of drug use among other students at Hope Academy.	-	-	-	-	"I don't know I use drugs a lot so. They would say I've been in addiction since middle school but I only started doing hard drugs about a year ago. That's like meth. Never done heroin. Drinking, weed, shit like that, pills every now and then, acid."
Academic Performance (Parent Node #2)	Mentions of academic performance while enrolled at Hope Academy. Academic grades before and after enrollment at Hope Academy. This also includes the number of absences from school the student had before and after enrollment at Hope Academy, as well as engagement level in school before and after enrollment (i.e., …"I pay attention more now.").	Do you feel that attending Hope Academy has helped your academic performance?	What grades did you earn before attending Hope Academy? What grades are you earning now?	Do you feel that Hope Academy helps students grow academically?	-	"Academically this school has helped me because I was sober while I was on probation, it helped me get my grades better. And actually do my homework, and actually be at school, not skip school like I used to at my old school."

Node	Definition	Student Interview Questions	Student Probing Questions	Staff Interview Questions	Staff Probing Questions	Example Quote
Recovery High School (RHS) Performance	Mentions of how the interviewee views the performance of Hope Academy as a school; includes; school policies, practices or general operations that directly impact students. Also, the ability of teachers and administrators to address destructive student behaviors, while providing an accredited educational curriculum.	Do you feel that attending Hope Academy has helped you grow academically?	Do you recall how you felt about your ability to succeed academically at Hope Academy when you first decided to enroll? How do you feel about your ability to succeed academically now?	-	-	"I think that as long as we are still focused on quantity over the true fit of a student for our environment, we are going to continue to struggle and feel like more of an alternative school."
Original High School	Node identified during coding process. Mentions of student experiences at one or more of the schools they attended before enrolling at Hope Academy.	-	-	-	-	"I knew anything would be better than the old school that I was at. I was just ready for a break for a while."

Appendix E: Student Pre Interview Questionnaire

Student Pre Interview Questionnaire

Your first name: _____
Phone number or Email: _____

1. What is your age? _____
2. What is your gender? _____
3. What is your current grade in school? _____
4. How long have you been enrolled at Hope Academy? _____
5. Do you go to recovery based meetings? Yes / No

   If yes, on average, how many per week? _____

Appendix F: Letter of Support from Hope Academy

HOPE ACADEMY
THE RECOVERY HIGH SCHOOL AT FAIRBANKS

TO: Indiana University IRB Review Committee

FROM: Linda Gagyi, Principal, Hope Academy

Dear Review Committee:

Please accept this letter of support for Adam Knotts and his IRB protocol number 1703842641 entitled, "Young People in Recovery from Substance Use Disorders: A Mixed Methods Analysis of a Recovery High School's Impact on Student Academic Performance & Recovery Success". Hope Academy has agreed to the following:

(a) allow Adam the opportunity to recruit our students and staff to participate in this study;
(b) provide a private room to conduct interviews; and
(c) allow students to participate during normal school hours.

At Hope Academy, we are excited to be working with Adam and believe the results of this research will help contribute to the future success of our students and school. The research also has potential to increase limited scientific knowledge regarding evidence-based strategies to provide educational and recovery support to young people. Consequently, we are pleased to lend our full support.

Sincerely,

Linda Gagyi, Principal
Hope Academy
l.Gagyi@fairbankscd.org

Appendix G: Student Qualifying Questionnaire

Student Qualifying Questionnaire

You are being invited to participate in a research study. Specific information regarding this study has been given to you verbally by the researcher, and you are volunteering to be included in the selection of participants as part of this research.

Your first name: _____

Best phone number or email to reach you: _____

Please circle either YES or NO

Have you been enrolled at Hope Academy for at least 30-days? YES / NO

Appendix H: Student Consent Letter

TO: Hope Academy Students

FROM: Adam Knotts, PhD Candidate
Indiana University Fairbanks School of Public Health

RE: A Study of the Impact of Hope Academy on Student Academic Performance & Recovery Success

As part of our goal to provide the best educational opportunity we can to the students of Hope Academy, we have initiated a study to better understand the impact Hope Academy has on our students' academic performance and recovery success. This letter gives you information about the study and asks that you agree to participate. Every Hope Academy student is being asked to participate, so you will be one of approximately 15 students participating in this study. Members of the staff will also be participating in this study. Signing the attached form means that you give permission for researchers to interview you for approximately 60-minutes. You will be asked questions about your experiences at Hope Academy. The information we gather will be kept completely confidential. Only an independent researcher will have access to the data and all identifiers will be removed from the data prior to any analysis or reporting of results. If you participate, you will receive a brief update on study activities and findings. After reading the study information, please sign and return the attached "Informed Consent for Participation in Research Activities" to Hope Academy and place them in the drop box we have placed in the Teacher Workroom directly across from Laurie Busch's office.

Is there an incentive to participate? Yes. All incentive payments will be placed in a collective pool, where the funds will be used to organize a school-wide pizza party. Each participating student (maximum of 15 student participants) will receive two (2) contributions to the pool worth $25 each. The contribution will be added to the pool once the attached form is successfully signed and turned in. The second contribution will be added to the pool after the student completes their 60-minute interview.

Do I Have To Participate? Your participation is entirely voluntary and there will be no penalty if you choose not to participate. You may withdraw your participation at any time.

What If I Have Additional Questions? You can call or email Adam Knotts (
acknotts@iupui.edu).

What Do I Need To Do To Participate? Simply sign the attached form and return to Hope Academy.

Thank you very much and we wish you the very best.

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

Hope Academy Impact Study

1. PURPOSE OF THIS RESEARCH STUDY: I have been asked to participate in this research study because my school, Hope Academy, has initiated a study to better understand the impact Hope Academy has on their students' academic performance and recovery success. The purpose of this study is to better understand potentially effective settings for students in recovery and the extent to which Hope Academy influences student progress. Our findings will help Hope Academy staff and administration to provide the best educational opportunity to the students.

2. WHAT WILL BE DONE: My participation in this study will consist of an interview, approximately 60-minutes in duration. Interviews will be conducted by Adam Knotts, a doctoral candidate at the Indiana University Fairbanks School of Public Health. You will be asked questions about your experiences at Hope Academy. I understand that I will be one of approximately 15 people participating in this study.

3. POSSIBLE BENEFITS: I have been informed that my participation in this research will not result in any benefit to me directly, but that potential benefit to others, in the form of improved programming and services at Hope Academy, may result from the knowledge gained from my participation.

4. POSSIBLE RISKS: I have been informed that the possible risk of this study is the accidental release of my educational records to someone I have not authorized to view this information. Also, subjects may feel uncomfortable responding to questions regarding their recovery experiences and reasons for attending Hope Academy.

5. CONFIDENTIALITY OF RECORDS: I understand that any information from this study in which I might be identified will remain confidential. All digital records will be in an encrypted data file on a password protected computer which will be kept in a secure office. All original paper copies of participant survey responses will be kept in a folder located in a locked cabinet inside a secure office on the Hope Academy campus. Only the investigator and members of the research team will have access to these records. If information learned from this study is published, I will not be identified by name. I understand that the safeguards that have been put in place are meant to minimize the risk of breaking confidentiality, but that the investigators cannot ensure or guarantee that a break in confidentiality will not happen. By signing this form, however, I allow the research study investigator to make my research records available to the Indiana University Institutional Review Board (IRB) Office and regulatory agencies as required by law.

6. OFFER TO ANSWER QUESTIONS: Adam Knotts who is responsible for this research study, has answered my questions regarding my participation in this research study, either personally or in writing. I understand that if I have any further questions, I can contact Adam at [redacted] or acknotts@iupui.edu. I understand that I will receive a copy of this document for my records.

7. VOLUNTARY PARTICIPATION WITH RIGHT OF REFUSAL: I have been informed that my participation in this research study is voluntary. I am free to withdraw my consent for participation in this study at any time without penalty.

8. IRB REVIEW AND IMPARTIAL THIRD PARTY: This study has been reviewed and approved by the Indiana University Institutional Review Board (IRB). A representative of that Board, from the IRB Office, is available to discuss the review process or my rights as a research participant. The telephone number of the Indiana University IRB Office is (

9. SIGNATURE FOR CONSENT: The above-named investigator has answered my questions and I agree to be a research subject in this study.

_____I give my consent for my information to be used in the Hope Academy Impact study.

_____	_____	_____
Name	Signature	Date

Appendix I: Student Assent Letter

TO: Hope Academy Students

FROM: Adam Knotts, PhD Candidate
Indiana University Fairbanks School of Public Health

RE: A Study of the Impact of Hope Academy on Student Academic Performance & Recovery Success

As part of our goal to provide the best educational opportunity we can to the students of Hope Academy, we have initiated a study to better understand the impact Hope Academy has on our students' academic performance and recovery success. This letter gives you information about the study and asks that you agree to participate. Every Hope Academy student is being asked to participate, so you will be one of approximately 15 students participating in this study. Members of the staff will also be participating in this study. Signing the attached form means that you give permission for researchers to interview you for approximately 60-minutes. You will be asked questions about your experiences at Hope Academy. The information we gather will be kept completely confidential. Only an independent researcher will have access to the data and all identifiers will be removed from the data prior to any analysis or reporting of results. If you participate, you will receive a brief update on study activities and findings. After reading the study information, please sign and return the attached "Informed Assent for Participation in Research Activities" to Hope Academy and place them in the drop box we have placed in the Teacher Workroom directly across from Laurie Busch's office.

Is there an incentive to participate? Yes. All incentive payments will be placed in a collective pool, where the funds will be used to organize a school-wide pizza party. Each participating student (maximum of 15 student participants) will receive two (2) contributions to the pool worth $25 each. The contribution will be added to the pool once the attached form is successfully signed and turned in. The second contribution will be added to the pool after the student completes their 60-minute interview.

Do I Have To Participate? Your participation is entirely voluntary and there will be no penalty if you choose not to participate. You may withdraw your participation at any time.

What If I Have Additional Questions? You can call or email Adam Knotts (acknotts@iupui.edu).

What Do I Need To Do To Participate? Simply sign the attached form and return to Hope Academy.

Thank you very much and we wish you the very best.

INFORMED ASSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

Hope Academy Impact Study

1. PURPOSE OF THIS RESEARCH STUDY: I have been asked to participate in this research study because my school, Hope Academy, has initiated a study to better understand the impact Hope Academy has on their students' academic performance and recovery success. The purpose of this study is to better understand potentially effective settings for students in recovery and the extent to which Hope Academy influences student progress. Our findings will help Hope Academy staff and administration to provide the best educational opportunity to the students.

2. WHAT WILL BE DONE: My participation in this study will consist of an interview, approximately 60-minutes in duration. Interviews will be conducted by Adam Knotts, a doctoral candidate at the Indiana University Fairbanks School of Public Health. You will be asked questions about your experiences at Hope Academy. I understand that I will be one of approximately 15 people participating in this study.

3. POSSIBLE BENEFITS: I have been informed that my participation in this research will not result in any benefit to me directly, but that potential benefit to others, in the form of improved programming and services at Hope Academy, may result from the knowledge gained from my participation.

4. POSSIBLE RISKS: I have been informed that the possible risk of this study is the accidental release of my interview responses to someone I have not authorized to view this information. Also, subjects may feel uncomfortable responding to questions regarding their recovery experiences and reasons for attending Hope Academy.

5. CONFIDENTIALITY OF RECORDS: I understand that any information from this study in which I might be identified will remain confidential. All digital records will be in an encrypted data file on a password protected computer which will be kept in a secure office. All original paper copies of participant survey responses will be kept in a folder located in a locked cabinet inside a secure office on the Hope Academy campus. Only the investigator and members of the research team will have access to these records. If information learned from this study is published, I will not be identified by name. I understand that the safeguards that have been put in place are meant to minimize the risk of breaking confidentiality, but that the investigators cannot ensure or guarantee that a break in confidentiality will not happen. By signing this form, however, I allow the research study investigator to make my research records available to the Indiana University Institutional Review Board (IRB) Office and regulatory agencies as required by law.

6. OFFER TO ANSWER QUESTIONS: Adam Knotts who is responsible for this research study, has answered my questions regarding my participation in this research study, either personally or in writing. I understand that if I have any further questions, I can contact Adam at [redacted] or acknotts@iupui.edu. I understand that I will receive a copy of this document for my records.

7. VOLUNTARY PARTICIPATION WITH RIGHT OF REFUSAL: I have been informed that my participation in this research study is voluntary. I am free to withdraw my assent for participation in this study at any time without penalty.

8. IRB REVIEW AND IMPARTIAL THIRD PARTY: This study has been reviewed and approved by the Indiana University Institutional Review Board (IRB). A representative of that Board, from the IRB Office, is available to discuss the review process or my rights as a research participant. The telephone number of the Indiana University IRB Office is (

9. SIGNATURE FOR ASSENT: The above-named investigator has answered my questions and I agree to be a research subject in this study.

_____I give my assent for my information to be used in the Hope Academy Impact study.

_____	_____	_____
Name	Signature	Date

Appendix J: Parental Consent Letter

TO: Parents of Hope Academy Students

FROM: Adam Knotts, PhD Candidate
Indiana University Fairbanks School of Public Health

RE: A Study of the Impact of Hope Academy on Student Academic Performance & Recovery Success

As part of our goal to provide the best educational opportunity we can to the students of Hope Academy, we have initiated a study to better understand the impact Hope Academy has on our students' academic performance and recovery success. This letter gives you information about the study and asks that you agree to allow your child to participate. Every Hope Academy student is being asked to participate, so your child will be one of approximately 15 students participating in this study. Members of the staff will also be participating in this study. Signing the attached form means that you give permission for researchers to interview your child for approximately 60-minutes. Your child will be asked questions about their experiences at Hope Academy. The information we gather will be kept completely confidential. Only an independent researcher will have access to the data and all identifiers will be removed from the data prior to any analysis or reporting of results. If your child participates, you will receive a brief update on study activities and findings. After reading the study information, please sign and return the attached "Informed Consent for Participation in Research Activities" to Hope Academy and place them in the drop box we have placed in the Teacher Workroom directly across from Laurie Busch's office.

Is there an incentive to participate? Yes. All incentive payments will be placed in a collective pool, where the funds will be used to organize a school-wide pizza party. Each participating student (maximum of 15 student participants) will receive two (2) contributions to the pool worth $25 each. The contribution will be added to the pool once the attached form is successfully signed and turned in. The second contribution will be added to the pool after the student completes their 60-minute interview.

Do I Have To Participate? Your child's participation is entirely voluntary and there will be no penalty if you choose not to allow your child to participate. You may withdraw your child's participation at any time.

What If I Have Additional Questions? You can call or email Adam Knotts (
acknotts@iupui.edu).

What Do I Need To Do To Participate? Simply sign the attached form and return to Hope Academy.

Thank you very much and we wish you and your child the very best.

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

Hope Academy Impact Study

1. PURPOSE OF THIS RESEARCH STUDY: I have been asked to allow my child to participate in this research study because his/her school, Hope Academy, has initiated a study to better understand the impact Hope Academy has on their students' academic performance and recovery success. The purpose of this study is to better understand potentially effective settings for students in recovery and the extent to which Hope Academy influences student progress. Our findings will help Hope Academy staff and administration to provide the best educational opportunity to the students.

2. WHAT WILL BE DONE: My child's participation in this study will consist of an interview, approximately 60-minutes in duration. Interviews will be conducted by Adam Knotts, a doctoral candidate at the Indiana University Fairbanks School of Public Health. Your child will be asked questions about their experiences at Hope Academy. I understand that my child will be one of approximately 15 people participating in this study.

3. POSSIBLE BENEFITS: I have been informed that my child's participation in this research will not result in any benefit to him/her directly, but that potential benefit to others, in the form of improved programming and services at Hope Academy, may result from the knowledge gained from his/her participation.

4. POSSIBLE RISKS: I have been informed that the possible risk of this study to my child is the accidental release of his/her interview responses to someone I have not authorized to view this information. Also, subjects may feel uncomfortable responding to questions regarding their recovery experiences and reasons for attending Hope Academy.

5. CONFIDENTIALITY OF RECORDS: I understand that any information from this study in which my child might be identified will remain confidential. All digital records will be in an encrypted data file on a password protected computer which will be kept in a secure office. All original paper copies of participant survey responses will be kept in a folder located in a locked cabinet inside a secure office on the Hope Academy campus. Only the investigator and members of the research team will have access to these records. If information learned from this study is published, my child will not be identified by name. I understand that the safeguards that have been put in place are meant to minimize the risk of breaking confidentiality, but that the investigators cannot ensure or guarantee that a break in confidentiality will not happen. By signing this form, however, I allow the research study investigator to make my child's research records available to the Indiana University Institutional Review Board (IRB) Office and regulatory agencies as required by law.

6. OFFER TO ANSWER QUESTIONS: Adam Knotts who is responsible for this research study, has answered my questions regarding my child's participation in this research study, either personally or in writing. I understand that if I have any further questions, I can contact Adam at or acknotts@iupui.edu. I understand that I will receive a copy of this document for my records.

7. VOLUNTARY PARTICIPATION WITH RIGHT OF REFUSAL: I have been informed that my child's participation in this research study is voluntary. I am free to withdraw my consent for my child's participation in this study at any time without penalty.

8. IRB REVIEW AND IMPARTIAL THIRD PARTY: This study has been reviewed and approved by the Indiana University Institutional Review Board (IRB). A representative of that Board, from the IRB Office, is available to discuss the review process or my rights as a research participant. The telephone number of the Indiana University IRB Office is (

9. SIGNATURE FOR CONSENT: The above-named investigator has answered my questions and I agree to allow my child to be a research participant in this study.

_____

Student's Name

_____	_____	_____
Parent/Guardian's Name	Parent/Guardian's Signature	Date

Appendix K: Staff Consent Letter

TO: Hope Academy Staff

FROM: Adam Knotts, PhD Candidate
Indiana University Fairbanks School of Public Health

RE: A Study of the Impact of Hope Academy on Student Academic Performance & Recovery Success

As part of our goal to provide the best educational opportunity we can to the students of Hope Academy, we have initiated a study to better understand the impact Hope Academy has on our students' academic performance and recovery success. This letter gives you information about the study and asks that you agree to participate. Every Hope Academy student and staff member is being asked to participate in this study. Signing the attached form means that you give permission for researchers to interview you for approximately 60-minutes. You will be asked questions about your experiences at Hope Academy. The information we gather will be kept completely confidential. Only an independent researcher will have access to the data and all identifiers will be removed from the data prior to any analysis or reporting of results. If you participate, you will receive a brief update on study activities and findings. After reading the study information, please sign and return the attached "Informed Consent for Participation in Research Activities" to Hope Academy and place them in the drop box we have placed in the Teacher Workroom directly across from Laurie Busch's office.

Is there an incentive to participate? Yes. All incentive payments will be placed in a collective pool, where the funds will be used to organize a school-wide pizza party. Each participating student (maximum of 15 student participants) will receive two (2) contributions to the pool worth $25 each. The contribution will be added to the pool once the attached form is successfully signed and turned in. The second contribution will be added to the pool after the student completes their 60-minute interview. All non-student participants will receive one (1) contribution to the pool worth $25, which will be added to the pool after he or she completes their 60-minute interview

Do I Have To Participate? Your participation is entirely voluntary and there will be no penalty if you choose not to participate. You may withdraw your participation at any time.

What If I Have Additional Questions? You can call or email Adam Knotts (acknotts@iupui.edu).

What Do I Need To Do To Participate? Simply sign the attached form and return to Hope Academy.

Thank you very much and we wish you the very best.

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

Hope Academy Impact Study

1. PURPOSE OF THIS RESEARCH STUDY: I have been asked to participate in this research study because my school, Hope Academy, has initiated a study to better understand the impact Hope Academy has on their students' academic performance and recovery success. The purpose of this study is to better understand potentially effective settings for students in recovery and the extent to which Hope Academy influences student progress. Our findings will help Hope Academy staff and administration to provide the best educational opportunity to the students.

2. WHAT WILL BE DONE: My participation in this study will consist of an interview, approximately 60-minutes in duration. Interviews will be conducted by Adam Knotts, a doctoral candidate at the Indiana University Fairbanks School of Public Health. You will be asked questions about your experiences at Hope Academy. I understand that I will be one of approximately 15 people participating in this study.

3. POSSIBLE BENEFITS: I have been informed that my participation in this research will not result in any benefit to me directly, but that potential benefit to others, in the form of improved programming and services at Hope Academy, may result from the knowledge gained from my participation.

4. POSSIBLE RISKS: I have been informed that the possible risk of this study is the accidental release of my educational records to someone I have not authorized to view this information. Also, subjects may feel uncomfortable responding to questions regarding their recovery experiences and reasons for attending Hope Academy.

5. CONFIDENTIALITY OF RECORDS: I understand that any information from this study in which I might be identified will remain confidential. All digital records will be in an encrypted data file on a password protected computer which will be kept in a secure office. All original paper copies of participant survey responses will be kept in a folder located in a locked cabinet inside a secure office on the Hope Academy campus. Only the investigator and members of the research team will have access to these records. If information learned from this study is published, I will not be identified by name. I understand that the safeguards that have been put in place are meant to minimize the risk of breaking confidentiality, but that the investigators cannot ensure or guarantee that a break in confidentiality will not happen. By signing this form, however, I allow the research study investigator to make my research records available to the Indiana University Institutional Review Board (IRB) Office and regulatory agencies as required by law.

6. OFFER TO ANSWER QUESTIONS: Adam Knotts who is responsible for this research study, has answered my questions regarding my participation in this research study, either personally or in

writing. I understand that if I have any further questions, I can contact Adam at (acknotts@iupui.edu. I understand that I will receive a copy of this document for my records.

7. VOLUNTARY PARTICIPATION WITH RIGHT OF REFUSAL: I have been informed that my participation in this research study is voluntary. I am free to withdraw my consent for participation in this study at any time without penalty.

8. IRB REVIEW AND IMPARTIAL THIRD PARTY: This study has been reviewed and approved by the Indiana University Institutional Review Board (IRB). A representative of that Board, from the IRB Office, is available to discuss the review process or my rights as a research participant. The telephone number of the Indiana University IRB Office is

9. SIGNATURE FOR CONSENT: The above-named investigator has answered my questions and I agree to be a research subject in this study.

_____I give my consent for my information to be used in the Hope Academy Impact study.

_____	_____	_____
Name	Signature	Date

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Curriculum Vitae

Adam Christopher Knotts

Education

2018	Doctor of Philosophy, PhD Health Policy & Management	Indiana University Earned at IUPUI
2012	Master of Business Administration, MBA Organizational Leadership	University of Indianapolis
2010	Bachelor of Science, BS Pre-Medicine, Exercise Science	Ball State University

Awards

2017	Kingsbury Research Award	Northwest Evaluation Association

Professional Experience

2014 -	Research & Evaluation Resources, LLC Research Consultant	Indianapolis, IN
2012 -	IU Fairbanks School of Public Health Doctoral Candidate & Associate Instructor	Indianapolis, IN

Publications & Policy Statements

Stone, C., Biviji-Sharma, R., Knotts, A., Norwood, C., Omenka, I. (2015) "Prevention and Intervention Strategies to Decrease Misuse of Prescription Pain Medications" Policy Statement Adopted by American Public Health Association

Norwood, C., Knotts, A., Omenka, O., Biviji, R., Stone, C. (2015) "Fighting Prescription Drug Abuse through State Policy: The Role of Nursing in Successful Implementation" Accepted for Publication in the Journal of Addictions Nursing